

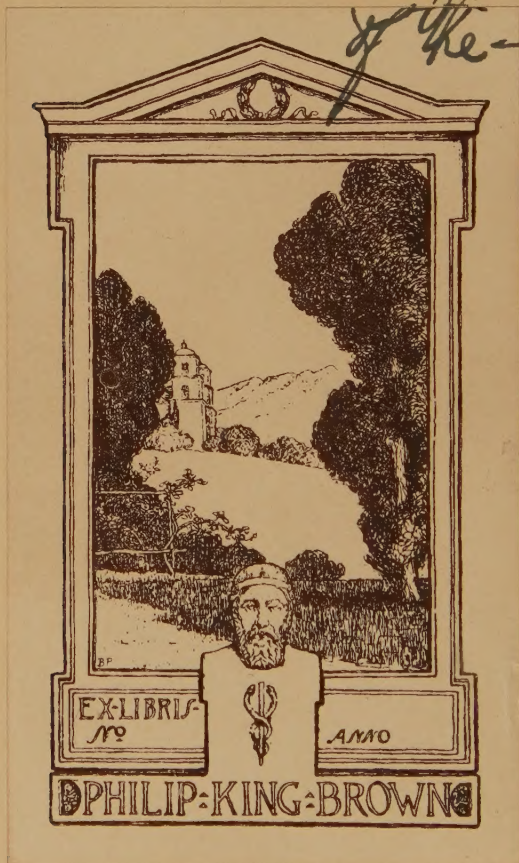
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**INDUSTRIAL PENSIONS
IN THE UNITED STATES**

STUDIES IN INDUSTRIAL RELATIONS PROBLEMS

PUBLISHED BY THE
NATIONAL INDUSTRIAL CONFERENCE
BOARD, INC.

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INDUSTRIAL PENSIONS IN THE UNITED STATES



NATIONAL INDUSTRIAL CONFERENCE BOARD, Inc.
NEW YORK

1925

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C. A. WALKER
Chief Surgeon & Manager
65 Market Street
San Francisco, Calif.

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Published, November, 1925

FOREWORD

WITH the return of more stable and normal economic conditions and the subsidence of disturbing external problems of national and international character since the war period, the attention of industrial management is again turning inward upon questions of intimate concern to the prosperity, security and growth of the individual enterprise, especially questions of personnel administration.

Among these problems that of providing for the retirement of employees who have passed the working age has recently commanded the increasing attention of employers, workers and the public. This problem is not merely of immediate practical importance to the industrial executive himself; it has a wide and far-reaching public significance; for it is in the relations between the individual employee and employer in all the separate enterprises that make up the productive organization of the nation that public attitudes on many economic and social questions have their original source. If they are not wisely and opportunely dealt with, the internal problems of management are often encountered again, in more difficult form, as external problems of public policy which may seriously affect industry as a whole. The interest and importance which attach to the problem of pensions are attested both by the growing movement to deal with the problem externally to industry in the form of public old-age pensions, and by the extensive efforts of employers to cope with it internally through systematic private pension plans.

This interest is due not only to the importance of the question of the relative scope and effectiveness of public and private responsibility in this matter. It arises partly from the fact that the private efforts in this direction are in large part relatively recent and still in the experimental stage and have been confronted by many problems which call for careful analysis and comparison of experience.

The primary purpose of this study is to indicate, by such

an analysis of experience, the possibilities and difficulties which lie in private initiative in meeting the problem of the superannuated worker, and the basic principles which underlie the success of such efforts. Part I offers an objective survey of the purpose, character, problems and accomplishments of the old-age pension plans now in operation in American industrial and business concerns. Based on this survey, Part II outlines more explicitly certain general principles and practical considerations which may guide employers in the organization and administration of pension systems. Since, as in all questions of industrial relations, the means must be adapted to the end to be sought and the conditions to be met in each individual establishment, nothing contained in this study should be taken as a final recommendation or disapproval by the Conference Board of any particular type of pension plan or procedure.

This volume is the result of an investigation conducted by Mr. Paul Wander and assistants, of the Conference Board's Research Staff, under the supervision of the Staff Economic Council.

In this investigation the Conference Board has had the benefit of the close cooperation and intimate practical experience of its Advisory Committee on Industrial Relations, composed of the following:

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In the preparation of its studies, the National Industrial Conference Board avails itself of the experience and judgment of the business executives who compose its membership and of recognized authorities in special fields, in addition to the scientific knowledge and equipment of its Research Staff. The reports of the Board thus finally represent the result of scientific investigation and broad business experience, and the conclusions expressed therein are those of the Conference Board as a body.

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INDUSTRIAL PENSIONS IN THE UNITED STATES

INTRODUCTION

Old age, with its frequent accompaniments of invalidism and dependency, is not essentially a problem of industry. It certainly is less strictly to be considered an occupational hazard than is a disabling accident or disease incurred in the course of employment. Men and women grow old and feeble and eventually become incapacitated for self-support, irrespective of whether they be wage earners or self-employed or not gainfully employed at all. The difference in this respect between wage earners and others, apart from individual habits of foresight and thrift, lies in the formers' complete dependence for savings upon their fixed wage or salary. If in any industry paying current rates of wages, prevailing habits of thrift prove inadequate to make due provision for old age dependency, the problem is one for the industry, in so far as it has an interest in the continuity, vitality and morale of its working force. If private industry fails to afford to its employees the means of livelihood after they have lost the power of productive labor, this burden will necessarily be passed on to the community or the state, and its cost becomes a charge upon the public purse or is met in other ways. The widespread interest in this problem is shown by the fact that laws providing for old age pensions have been enacted in Wisconsin, Montana, Nevada, and Pennsylvania,¹ and bills to this end have been introduced in the legislatures of eleven other states. Moreover, private benevolent or fraternal organizations and various trade unions have developed provisions which may be considered as directly or indirectly within the field of old age pensions, while insurance companies are giving increasing attention to the subject.

Experience with the administration of pensions for public

¹ Declared unconstitutional by the Supreme Court of the State, on Feb. 2, 1925.

employees in this country has not always been such as to predispose the taxpayer in favor of universal old age pensions by legislative enactment. The danger of waste, extravagance and corruption in the disbursement of pension funds is too real to be ignored. Moreover, as viewed by many, such an extension of state activity is to be avoided if possible, and combatted if necessary, as socialistic and mischievous. There is seen in it a tendency to undermine individual thrift on the part of the workers and to place a premium upon inefficiency and improvidence.¹ The prevailing opinion among American industrialists favors the voluntary assumption by private industry itself of such responsibility for the welfare of its personnel and the improvement of industrial relations as it is capable of discharging efficiently. This opinion is supported by the realization that industry's failure to assume such responsibility would almost certainly invite intervention by the state or other outside agency.

In keeping with this preference for private initiative, many of the largest industrial enterprises, including commercial and financial institutions, railway and other public utility corporations, have established systems of service pensions for their superannuated employees. The list of such concerns, already long, is constantly growing. Without assuming that this movement is purely humanitarian in purpose, there seems to be a recognition, at least among the larger employers of labor, that industry has some special obligation to the worker who grows old in its service. Although modern industrialism rests upon the institution of a free and mobile labor supply, a degree of stability in the labor force of a plant confers decided economic advantages long recognized by far-sighted employers. The establishment by them of a pension system for retired employees may therefore be interpreted as a form of appreciation and reward for faithful service in the face of employment opportunities beckoning elsewhere. An additional factor, probably, is the perception that individual thrift cannot always be relied upon to insure an adequate income to employees when they are no longer capable of productive labor.

¹ See: Report of the Massachusetts Commission on Old Age Pensions, Annuities and Insurance, 1910, p. 259. Also: Report of the Special Commission on Pensions, Massachusetts, 1914, p. 12.

The purposes pursued by employers in establishing service pension systems for superannuated employees are various and complex. Often, the objective conditions and circumstances that move employers generally to act in this matter are only partially revealed in their avowed purposes, and may not even be consciously apprehended. Thus it may be that the encroachments of labor organizations upon the competitive labor market demand some counter-attraction on the part of the employer to retain the full loyalty of his working force and the power of replenishing it. It may be, too, that the pressure of world-wide competition in the major industries and the consequent drive for reduced costs compel the tuning up to its maximum efficiency of every factor, human as well as mechanical. Any marked slackening of productivity at one point in the organization is quickly communicated to an entire department and impedes its operation throughout. The employer may become aware of or have called to his attention the declining powers of some superannuated employees here or there, whom he may be too fair-minded to discharge outright, as he would scrap obsolete machinery or defective material in his plant. Nor, on the other hand, may he be able long to continue them on the payroll either at their accustomed work or at some lesser job, without productive detriment. Moved by humane considerations as well as by stern business necessity, the employer would welcome a procedure for dealing constructively with this problem.

Such a procedure is at hand in the form of a retirement pension system, which enables the employer to compensate the aged employee for his fidelity to the job while at the same time easing the process of retirement and replacement. In making his decision to adopt a pension scheme, the employer is confronted with several different types of arrangement among which to choose. His choice will be determined by the peculiar circumstances of his situation and by the purposes paramount in his mind. At one extreme he has the alternative of an informal policy of relief or emergency allowances. At the other, he has open to him a formal plan with guaranteed benefits, operated in accordance with regulations definitely laid down in advance. The

schemes found in actual operation range all the way from the one type to the other. At one extreme, pensions disappear and are replaced by charitable doles; at the other they merge into insurance.

The charitable approach to the problem has its definite limitations and drawbacks, especially for the large employer. Responsible as he is in the first instance to the stockholders of the corporation, he is ordinarily not free to indulge his personal inclinations and sympathies in dealing with the needs of individual workers. All his administrative acts must be governed by strict business principles. His contact with the thousands of men and women under his direction is necessarily remote and impersonal, while charity, to be effective, must be essentially personal. The attempt to combine the one with the other may easily result in favoritism, arbitrary discrimination, and paternalistic interference with personal liberty.

There are, to be sure, offsetting advantages, chiefly as regards cost and considerations of exact justice, that commend this method to many employers. These may, under certain conditions and in relatively small businesses, outweigh the disadvantages. At the other end of the scale, the quasi-automatic method likewise has its favorable and unfavorable features. But the balance cannot be struck alike for all or in a hard and fast manner. It depends upon the purposes to be served and upon the particular situations to be met. The era of experimentation is by no means over, though certain technical points relating to pension finance have already been established with certainty. The question of the relative merits of various pension systems is complex. Even tentative conclusions must rest as far as possible on the secure basis of tested facts rather than on preconceptions or superficial impressions. This book aims to supply a body of information and analytical reflections bearing on the experience of American industry with its own pension schemes, that may help to form an independent judgment upon the meaning and trend of that experience.

The investigation upon which this report is based has aimed to include every pension plan operative in private, industrial, mercantile and financial establishments. The

plans of railroads, public utilities and a few semi-public institutions are included, but governmental pensions for employees or others, as well as the provisions of trade unions and other fraternal or benevolent organizations, are not here considered, being outside the scope of the present study. Within these limits the coverage is believed to be virtually complete. Altogether 248 different plans conducted by 245 different firms have been listed and analyzed and their workings studied in the light of first-hand information obtained by means of questionnaires, correspondence, and a number of personal interviews. In addition, 148 informal programs, operated on an individual merit basis, have been examined for comparative purposes, though not included in

TABLE 1: DATE OF ESTABLISHMENT OF COMPANY, BY
DECADES

Before 1830.....	7
1830-'50.....	12
1851-'60.....	19
1861-'70.....	29
1871-'80.....	22
1881-'90.....	28
1891-1900.....	40
1901 to '10.....	29
Since 1910.....	15
Not reported ^a	44
Total.....	245

^a A large number of companies having pension plans in operation do not appear separately in this total or in the enumeration of companies in the Appendix. The reason for this intentional omission is that, being subsidiaries, they are included, for the present purpose, in the parent or holding companies. As a rule, only the latter have been listed, their pension plans being the same for their constituent units as well.

TABLE 2: DATE OF ADOPTION OF PLAN, BY FIVE-YEAR
PERIODS

Before 1885.....	1
1885 to 1890.....	1
1891 to 1895.....	1
1896 to 1900.....	2
1901 to 1905.....	16
1906 to 1910.....	26
1911 to 1915.....	73
1916 to 1920.....	68
1921 to 1925.....	40
Not reported.....	20
Total ^a	248

^a Several firms carry on two different pension plans for different groups of employees.

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the statistical analysis. The ages of the concerns conducting formal plans vary from one to one hundred years, the largest number organized during any decade being 40, which was the number established between 1891 and 1900. The origin of most pension plans is much more recent, approximately four-fifths of the total number having been adopted since 1910, as shown in Table 2.

The total number of employees covered by formal pension plans in the 215 establishments reporting on this item is 2,815,512. The proportion of male to female employees, in so far as reported, is about three to one.¹ Classified according to major industries, pension systems are found predominantly in metal working establishments, railroads, and other public utilities, these three groups together accounting for nearly 85% of the total, as shown in Table 3.

TABLE 3: NUMBER OF EMPLOYEES COVERED, ACCORDING TO INDUSTRY AND SEX OF EMPLOYEES

Industry	Number of Firms		Number of Employees Covered			
	Listed	Report- ing	Male	Female	Not Classified	Total
Metals.....	60	50	257,130	39,814	405,681	702,625
Railroads.....	37	31	156,443	5,749	1,019,317	1,181,509
Other public utilities.....	47	41	252,377	204,651	34,956	491,984
Banking.....	18	15	9,295	3,750	393	13,438
Insurance.....	9	9	48,327	21,558	2,500	72,385
Merchandise.....	12	12	6,764	7,889	14,000	28,653
Petroleum.....	11	10	60,270	2,729	11,358	74,357
Chemical products.....	10	9	20,290	4,104	2,458	26,852
Mining and quarrying.....	6	6	10,942	185	15,460	26,641
Paper and printing.....	9	9	4,579	2,333	1,341	8,253
Textiles.....	8	8	8,627	5,990	..	14,617
Food products.....	7	7	39,638	5,321	62,000	106,959
Miscellaneous.....	11	8	50,425	16,813	55	67,293
Total.....	245	215	925,107	320,886	1,569,519	2,815,512

Classified by size of establishment, as indicated in Table 4, it appears that of 215 concerns reporting, the twenty-nine which employ over 25,000 persons each together account for over two million employees, or nearly three-fourths of the total.

¹ It is assumed, and a comparison with the corresponding census figures makes this probable, that a similar proportion holds for those employees who are reported in Table 3 as "not classified."

TABLE 4: NUMBER OF EMPLOYEES COVERED, BY SIZE OF ESTABLISHMENT AND SEX OF EMPLOYEES

Number of Employees per Establishment		Number of Establishments	Number of Employees Covered			
			Male	Female	Unclassified	Total
Less than 200	200	7	416	90	279	785
200 to 500	500	20	5,552	1,261	277	7,090
501 to 800	800	18	9,096	2,580	..	11,676
801 to 1,000	1,000	12	6,007	3,275	1,762	11,044
1,001 to 1,500	1,500	16	14,036	4,936	1,341	20,313
1,501 to 3,000	3,000	39	62,444	12,939	8,550	83,933
3,001 to 5,000	5,000	28	69,365	11,153	33,965	114,483
5,001 to 10,000	10,000	27	131,140	20,231	48,674	200,045
10,001 to 15,000	15,000	13	84,860	7,589	61,900	154,349
15,001 to 25,000	25,000	6	81,966	4,239	46,205	132,410
25,001 to 50,000	50,000	16	204,357	36,016	331,294	571,667
50,001 to 100,000	100,000	9	160,188	36,117	366,176	562,481
Over 100,000	100,000	4	95,680	180,460	669,096	945,236
Not reported		30	..	..	..	..
Total		245	925,107	320,886	1,569,519	2,815,512

Of the 245 establishments known to have pension plans in operation, 164 report having pensioners on their rolls. The total of such pensioners, as of December, 1924, was 35,953. The number of male pensioners exceeded the female in the ratio of nearly twenty to one. The distribution of pensioners according to industries and size of establishment follows

TABLE 5: NUMBER OF PENSIONERS ON ROLLS, BY INDUSTRY AND SEX OF PENSIONERS

Industry	Number of Establishments				Number of Pensioners			
	Total	Re-reporting Pensioners	No Pensioners	Not Re-reporting	Male	Female	Unclassified	Total
Metals	60	35	3	22	1,512	110	6,570	8,192
Railroads	37	27	1	9	5,040	39	15,385	20,464
Other public utilities	47	32	2	13	1,606	21	730	2,357
Banking	18	9	4	5	56	11	..	67
Insurance	9	7	1	1	90	43	159	292
Merchandise	12	11	..	1	149	133	75	357
Petroleum	11	8	..	3	669	6	703	1,378
Chemical products	10	9	..	1	648	86	..	734
Mining and quarrying	6	4	..	2	454	1	..	455
Paper and printing	9	8	1	..	49	7	..	56
Textiles	8	6	..	2	158	73	..	231
Food products	7	3	..	4	8	1	1,176	1,185
Miscellaneous	11	5	2	4	164	13	8	185
Total	245	164	14	67	10,603	544	24,806	35,953

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roughly the distribution of employees as a whole, making allowance for differences in sex composition among the various groups.

TABLE 6: NUMBER OF PENSIONERS ON ROLLS, BY SIZE OF ESTABLISHMENT AND SEX

Number of Employees per Establishment		Number of Firms Reporting				Number of Pensioners on Rolls			
		Total	Pen-sioners	No Pen-sioners	Not Re-ported	Male	Female	Un-classi-fied	Total
Less than 200	.....	7	4	3	..	11	..	..	11
200 to 500	.....	20	17	2	1	103	19	1	123
501 to 800	.....	18	15	1	2	121	13	9	143
801 to 1,000	.....	12	11	..	1	79	28	0	107
1,001 to 1,500	.....	16	12	1	3	126	29	68	223
1,501 to 3,000	.....	39	24	5	10	592	66	3	661
3,001 to 5,000	.....	28	19	..	9	1,505	69	49	1,623
5,001 to 10,000	.....	27	23	..	4	2,054	209	639	2,902
10,001 to 15,000	.....	13	10	..	3	1,398	26	240	1,664
15,001 to 25,000	.....	6	5	..	1	1,039	4	702	1,745
25,001 to 50,000	.....	16	9	1	6	2,217	10	1,746	3,973
50,001 to 100,000	.....	9	9	..	..	1,073	17	6,007	7,097
Over 100,000	.....	4	3	..	..	..	..	15,149	15,149
Not specified	.....	..	3	1	..	285	54	193	532
Not reported	.....	30	..	..	27	..	..	..	..
Total	.....	245	164	14	67	10,603	544	24,806	35,953

The disbursements for pensions during the year 1924 by 163 concerns reporting totaled \$18,192,250.59, distributed as follows:

TABLE 6A: AMOUNTS PAID ON ACCOUNT OF PENSIONS

Amount	No. of firms
Under \$1,000	8
\$1,000 to 5,000	31
5,000 to 10,000	21
10,000 to 25,000	29
25,000 to 50,000	16
50,000 to 100,000	24
100,000 to 200,000	12
200,000 to 500,000	15
500,000 to 1,000,000	4
Over 1,000,000	3
Not reported	82
Total	245

PART I: EXPERIENCE WITH PENSION
PLANS

CHAPTER I

GENERAL SUMMARY

PURPOSES

Industrial pension plans, generally speaking, have for their ultimate purpose the improvement of industrial relations. Employers who institute such plans pursue a variety of aims, some of which are circumstantial and arise from special conditions in the establishment or from the attitude of individual employers, while others are more fundamental and run through the whole pension movement. Specifically, by promising a measure of security from want in old age to employees who will devote the best years of their working lives to the service of one employer, a service pension is calculated to encourage such continuity and constancy in employment. If it proves in any marked degree effective in reducing turnover to a healthy minimum, in stabilizing the working force, in stimulating loyalty and efficiency, and in creating contentment and good-will among the employees, it is an excellent investment and an asset to the business. If in addition a pension system affords the employer a definite as well as humane method for retiring superannuated employees, it also justifies its cost as an aid to management. Elimination of ineffective workers by the pension route is well adapted to raise the level of efficiency in the active force. It clears the way of promotion for younger employees, while favorably affecting the morale of the entire organization. Like any other sound policy in personnel administration, the pension must rest upon an adequate relation of "give and take." It is to be thought of as at the same time a reward and an incentive. In rewarding the faithful service of those employees who are retired, it is intended to strengthen the disposition to such service in those who remain.

EVALUATION OF RESULTS

Employers who have given thought to their experience with pension systems are not unanimous in their conclusions

as to the success of such experience. While many express unqualified satisfaction with the results of their schemes, others are more or less dubious of their value, and still others regard them as definitely disappointing. Where the effects of a pension system have fallen short of expectations, it has sometimes been due to an underrating of the costs and sometimes to an oversanguine conception of the possibilities of such a scheme. Many pension plans have been established without adequate knowledge of the financial obligations entailed thereby and benefits have been fixed irrespective of the funds available for paying them. In a number of cases the consequence has been an unforeseen increase in the pension roll and, sooner or later, embarrassing demands upon the corporation's income. The employer has then been confronted with the painful alternative of increasing annual appropriations on account of pensions or curtailing the number and amount of allowances granted or to be granted. The choice is painful, because increased pension disbursements cut into profits while, on the other hand, the existing rates of allowance are frequently so small as not to bear further reduction.

The advantages derived by a business enterprise from the operation of a pension plan are not easy to measure, and the divergent estimates are at least partly subjective. On one side are the claims of those employers who attribute to their schemes the realization of all their expectations. They report a decided improvement in loyalty of the force, a lowering of the turnover rate, a raising of the quality of the labor force, greater facility in retiring incapacitated employees, enhanced efficiency within the plant and good-will in the community at large. Over against these expressions of endorsement must be set the adverse judgment of other employers, who have been less fortunate in their experience with pension plans. Their complaint frequently centers in the fact that the younger men fail to show due appreciation of the beneficent provision made for them, while the older ones are not in need of such inducement to long service. Besides, the existence of the plan has not been found by these employers visibly to strengthen the loyalty of employees during industrial disputes. A third group of employers take an in-

intermediate position. Without setting up definite expectations, they are willing to regard their pension schemes frankly in the light of an experiment, in the hope that in time these may yield a net gain in organization morale or a similar tangible benefit to the corporation.

CLASSIFICATION AND TYPES

Pension programs in industry may be divided into three main classes or types, according to the degree in which their operation is governed by rules and the extent to which the employer's rights and powers are limited by his obligations and liabilities. Another classification of practical significance is that separating proprietary from contributory or jointly financed schemes. The former line of division is significant from the standpoint of evolution of pension plans. There is no sharp line dividing these classes and stages, but in their typical manifestations they may be distinguished, for convenience, as *informal*, *formal discretionary*, and *limited contractual* plans. The traditional and perhaps oldest method of dealing with superannuated workers in industry—a method still widely prevalent—is to transfer them to easy routine jobs, where they may continue to earn a partial wage. In some plants this custom was early abandoned in favor of a policy of retiring such workers on modest and more or less arbitrary allowances, when and as their circumstances and the disposition of the employer dictated. This *informal* type of provision is in use today in a large number of industrial and commercial establishments, mostly of moderate size. But with the growth of working forces and of impersonal relations between management and men, the need arose for the creation of rules and machinery for the administration of pension awards. These then came to be made less on a basis of individual merit and more in accordance with a predetermined plan.

Formal pension plans are in the majority of cases still of the *discretionary* type. They reserve to the management the exclusive right to grant, withhold, reduce or terminate the allowance in individual cases, or to modify or abandon the plan altogether. But there is evident a tendency toward

greater mutuality of obligations. This comes to expression first in a recognition on the part of many employers of a definite liability for pensions already granted. These enjoy the status of a quasi-contractual obligation and are so treated in an increasing number of plans. Liability is also assumed in many recent plans for the past service of employees on the force at the time of the installation of the plan. The recognition of these "accrued liabilities" calls for corresponding financial provision, and the funding of both forms of liability is becoming more common. Another evidence of the trend away from the traditional one-sidedness of pension schemes is supplied by the recent spread of the contributory feature, by which the distribution of rights tends to follow that of burdens.

But conservative tendencies are not absent. In fact, a large majority of plans expressly reject the contractual theory and with it the principle of legal liability for pensions in any form. They insist on the voluntary character of all awards and the provisional quality of the rules themselves. In keeping with this proprietary standpoint, they retain the complete administrative control of the system in the hands of the management of the company. Fully *contractual* pension plans are, as yet, quite rare, and in only a few instances is their operation entrusted to an insurance company. In these cases the award of an annuity or pension takes effect more or less automatically and on a fixed scale upon the employee's fulfillment of certain definite conditions expressed in terms of age or service period or both. The contractual element is found only in pension plans which are contributory, though by no means all contributory plans are contractual, or even limited contractual, in character. Without a sound financial foundation, moreover, no contractual plan would long remain solvent.

The following table shows the marked numerical preponderance of proprietary or non-contributory types of pension over those which involve the financial participation of employees. It also sets into emphatic relief the predominantly discretionary character of such schemes, as distinguished from those of a more or less contractual sort.

TABLE 7: TYPES OF PLAN

Contributory:		
Optional.....	10	
limited contractual.....	5	
contractual.....	5	
Compulsory.....	18	
discretionary.....	4	
limited contractual.....	12	
contractual.....	2	
Non-contributory:		
Discretionary.....	168	
Limited contractual.....	43	
Not specified.....	9	
Total.....	248	

A comparison of the distribution by industry of the different types of pension plans is presented in Table 8. The significant feature is the relatively high proportion of contributory plans in the field of banking and the food industries, their scarcity in the railroad field, and their absence from insurance companies and the paper and petroleum industries.

TABLE 8: TYPES OF PLAN, BY INDUSTRIES

	Con- tributory	Non-contributory		All types
		1. Dis- cretionary	2. Limited Contractual	
Metals.....	5	38	17	60
Public utilities.....	2	37	7	46
Railroads.....	1	36	..	37
Merchandise.....	2	9	1	12
Banking.....	9	8	..	17
Insurance.....	..	8	..	8
Paper and printing.....	..	8	1	9
Textiles.....	1	6	..	7
Chemicals.....	1	5	4	10
Mining.....	1	4	1	6
Petroleum.....	..	3	8	11
Food products.....	3	3	..	6
Miscellaneous.....	2	3	4	9
	28	168	43	239

SUMMARY

Contributory.....	28
Non-contributory: Discretionary.....	168
Limited contractual.....	43
Not specified.....	9
Total.....	248

ATTITUDE OF EMPLOYEES

The value to the employer of a pension system is realized in the main indirectly, i. e., through its effect upon the employee's mental attitude—his sense of security in particular. Consequently, the utility and the very success or failure of a given plan will depend largely on the spirit in which it is received. This is more strictly true of contributory plans, under which the employee assumes an active relation or obligation. In general, the individual worker is ready to accept without hesitation a benefit financed wholly by the employer. His readiness would be limited only by considerations of preserving his personal liberty and possibly also his economic status. If pensions are promised and not obviously paid at the expense of good wages, the worker will ordinarily regard the scheme in the light of its net advantage to himself. He will be favorable to it according to his age and chances of sharing in the benefits. His attitude will be determined practically by the size of the benefits and by their certainty. If small in comparison with his customary earnings, they will make little appeal to his self-interest and will scarcely evoke that appreciation which is the presupposition of what is called loyalty. They may even fail to induce timely retirement on the worker's part and thus defeat one of the essential purposes of the plan. Likewise, the problematic character of pension awards under discretionary plans weakens their moral effect upon the worker's imagination and consequently their power for arousing his interest and cooperation. As is to be expected, young workers are, in general, far less impressed with the advantages of a pension system than are those of more advanced years. They would rather follow the lure of high wages now and face or ignore the problem of savings in their own way, than cling to their jobs in the hope of gaining, or the fear of losing, an annuity in old age.

ATTITUDE OF LABOR ORGANIZATIONS

The attitude of the trade unions toward pension systems initiated by the employer is, on the whole, apathetic and even hostile. The discretionary type of plan in particular is viewed by them as a subtle attempt to undermine the morale

of their movement. They deprecate especially the insidious weakening effect upon organization discipline of favors received by some of their members at the employer's hands. They apprehend that in the event of strike or other conflict the older men might be deterred by the threatened loss of their pensions from acting in loyal concert with their younger fellows.

General trade union policy aims at monopolizing as far as possible all measures adapted to serve the economic security and uplift of the membership. Thus, even where the employer's sincerity of motive is beyond question, the union persists in its distrust of proprietary pension plans on the ground of their inherent taint of paternalism. If the pension serves as an inducement for employees to give longer or more conscientious service than they otherwise would, it is considered a species of deduction from wages. As such it is felt to be a proper subject of collective bargaining and not to be left to the free discretion of the employer. A pension system devoid of the suggestion of patronage and established and managed jointly by the parties to the collective agreement would meet this fundamental objection. But such a system would embody the principle of contractual liability and would be apt to rest on some sort of contributory basis. The employer's contributions would necessarily be merged in a common fund with those of the employees—though not necessarily pooled for the industry as a whole—and be jointly administered. No such scheme for service pensions is now found in operation in industrial establishments. The American worker has thus far preferred to regard the problem of thrift as his personal affair; and where collective enterprise is called for, he has relied upon his own fraternal or trade union organization, as the case may be, to supply the machinery and the management. The pension systems of the Typographical Union and of the Locomotive Engineers are cases in point as well as indications of a present tendency.

CONDITIONS OF ELIGIBILITY

A comparison of the terms and conditions governing the pension award reveals striking similarities in structure among

different plans. This uniformity is particularly evident in the requirements for eligibility and in the manner of computing the amount of pension allowances. The two basic factors determining eligibility to retirement benefits are age and length of service. The measure of each varies somewhat in different plans and for different groups under the same plan, namely, those who are retired at their own request, at the discretion of the employer, or automatically. The last named group comprises those employees who reach a fixed maximum or compulsory retirement age. The margin between this and the earlier permissive ages affords a certain degree of flexibility in the administration of the plan. The same is true as regards length of service required for eligibility. This is the pivotal factor in the majority of schemes. But for the sake of greater freedom in dealing with the special circumstances of individual cases, one of these two requirements is frequently waived altogether and retirement based on the other alone.

Under informal pension programs, generally speaking, no uniform conditions for retirement are observed, and eligibility is determined by the employer on the score of need and expediency in each particular case. Under plans of a contractual type, on the other hand, these conditions are definitely known in advance and are directly related to the amount of the benefit, independently of the discretion of the employer. Finally, as regards pensions paid on account of disability, these awards are subject to a large element of discretion. Account is taken not merely of the cause of disability, its extent and duration, but also of the circumstances of age and service. It is not uncommon for both of these factors to be left indeterminate in the plan. Age in particular, as a condition of eligibility, is usually an undefined quantity. Since incapacity resulting directly from occupational hazards is in most states covered by workmen's compensation laws, disability pensions stand in a supplementary relation to such legal provisions.

AMOUNT OF PENSION ALLOWANCE

Once the worker has been declared eligible for retirement, the question remains as to the size of the pension allowance

to be awarded. An informal policy answers this question on the basis of the individual's circumstances and deserts. The decision rests with the employer and depends upon a variety of intangible considerations. The more formal and systematic the plan, the more clearly defined are the factors by which the amount of the pension is determined. The typical procedure under a majority of plans is to multiply some fixed or graduated percentage of average wages over a stated period of years by the total number of years of continuous service. This method of computation becomes simpler and less arbitrary under certain contributory plans, which take the entire period of service as a basis. As in the matter of eligibility, so in the fixing of the size of allowances, some plans disregard length of service, while others ignore even salary differences. Various limitations as to maximum and minimum allowances supplement those of eligible and ineligible classes. They are calculated to conserve the available pension funds, while at the same time making for their equitable distribution among the intended beneficiaries. The general tendency seems to be toward a computation of allowances that shall take account primarily of service period and secondarily of salary grade, and shall involve the least number of variable factors. Mathematical justice is here as elsewhere an unattainable ideal.

Another tendency, which is even more pronounced, is toward a contributory type of pension system. This is found by a number of employers to be preferable both on the ground of making possible larger benefits and by reason of the greater interest and cooperation of employees it arouses in the plan as a whole. The contributory feature also prepares the way for an increasing participation of employees in the framing of the rules and in their administration. The practice of submitting the draft of a pension plan to a referendum vote of the employees who are to come under it, both as contributors and as beneficiaries, is a development consistent with the general cooperative trend in industry.

In addition to superannuation and disability allowances, there are several other types of benefit that may be provided under a pension plan. These are withdrawal and death benefits. Withdrawal benefits, which are confined virtually

to contributory plans, are in reality merely refunds of employees' contributions in the event of separation or of the discontinuance of the system. Only in a few contractual plans is the employee conceded any equity in the employer's contributions on his account in the event of withdrawal.

The duration of the pension is ordinarily limited to the life of the pensioner. In some cases it is restricted to an arbitrary period of years, in others to a period equal to the individual's length of service, while in yet others it is extended for a brief term beyond his death to accrue to his dependent widow or minor children as beneficiaries. In the last case, the benefit may be paid as a pension or in a lump sum and the amount varies widely. Death benefits, if provided out of pension resources, complicate the problem of financing, especially where pension costs are funded on an actuarial basis. It follows that a more scientific procedure would be the independent establishment of such benefits by group insurance or otherwise.

COST OF BENEFITS

The feature which is the main center of controversy in connection with the whole problem of pensions is their financial structure. This involves, first, a calculation of costs of the specified benefits under the specified conditions of the plan and, secondly, a method for providing the funds to meet such costs most efficiently. The fundamental elements in cost are the number and the amount of pension allowances. The calculation is made more difficult by the variety and indefiniteness of the factors entering into it. Among these factors the following are most commonly to be considered: length of service of the employee, his average or final salary, the percentage of salary used, his age at entrance and at retirement, the age and sex distribution in the active force, the age of the business, the rate of turnover, the limitations on eligibility, and the character of supplementary benefits. Some of these are fixed and known quantities, while others are variable and indeterminate.

FINANCING OF PENSION PLANS

A careful estimate of probable costs of a pension scheme is an essential preliminary to sound financing. Traditionally, this procedure has not been followed and even today the majority of schemes rest on a merely empirical or hand-to-mouth basis of appropriations sufficient merely to meet current demands. In many instances the appropriations do not even meet these demands at all times, being arbitrarily limited regardless of the amount of maturing claims. A number of plans are supported by capital funds, the income from which suffices either partially or wholly to pay pension allowances. Usually such funds have to be supplemented by special appropriations out of company surplus. In a few cases the supplemental appropriations and contributions by one or both parties are made regularly and in accordance with a definite forecast of cost over a series of years. The forecast takes account not only of costs arising from present pensions and the effect of mortality rates upon them, but also of costs due to pensions already partly accrued and to be granted in the years to come to employees now on the active force. And, finally, it tries to approximate the cost of pensions for employees yet to be added to the force both by way of replacement and by way of expansion. Such a comprehensive estimate of future liabilities furnishes what is known as an actuarial basis for a pension plan. Its importance is found in the fact, amply borne out by experience, that pension costs invariably show a tendency to increase more or less rapidly over a long period of years. Unless, therefore, this increase is anticipated and the burden of it distributed on some rational principle through the years, it may easily grow too heavy to be borne with safety. The alternative of revising the benefits downward or of abandoning the plan entirely is one that no far-seeing employer would contemplate with equanimity. He would rather not embark at all on a formal plan which commits him to increasing disbursements in the future.

A rational or scientific system of pension finance presupposes a degree of simplification in the terms of the plan that is rarely found in practice. The very purposes of an

industrial service pension run counter to the aim of simplification. If long service is to be rewarded and encouraged by the pension plan as such, a minimum service requirement is almost unavoidable. If individual earning capacity or efficiency and customary standards of living are to receive recognition in the size of pension allowances, these allowances must somehow be computed on salary earned. As a result, they cannot be calculated far in advance of retirement, and cannot readily serve to determine the exact amount of contributions to be set aside annually with respect to each prospective pensioner until the time of pensioning is actually at hand. This difficulty is overcome by what is known as the cumulative single premium annuity, but not without sacrificing the specific incentive to long service, which is a primary function of most pension plans.

A way of meeting both phases of the difficulty is that of building up reserves as to every employee eligible for pension, by means of regular premium payments into an insurance company or trust fund. These payments would bear some constant ratio to the salary of the employee on whose account they were made, and would automatically reflect grades and variations in individual earning capacity. The reserves thus accumulated by the employer would not, however, accrue in the form of a pension to the employee unless he remained in the service for a stipulated period of years. Withdrawal from the force within that time would make such funds, together with interest, available for meeting premiums on other pension accounts. The problem of estimating the elusive element of turnover and withdrawal rates is thus reduced to its lowest terms.

TENDENCIES

If on the basis of the material studied in the present investigation, an inference may be hazarded as to the probable trend of future developments in the field of industrial pensions, it is that certain present tendencies will be accentuated. Gradually, pension schemes are being freed of arbitrary and discretionary features and are outgrowing their paternalistic character. A clearer conception is slowly gaining

ground of the value of employee participation in the installation and financing, if not in the actual administration of the plan. Consequently, more and more plans are coming under the rule of contributory and contractual principles. When employees bind themselves to contribute a substantial portion of the funds toward their own pensions, they naturally desire a voice in the determination of the conditions governing the receipt of benefits. These conditions are increasingly laid down in definite rules and by-laws, which afford virtual guaranties and are superior to the employer's whims or the temporary fluctuations of business. At the same time, the size of pension benefits tends to become more adequate, embodying as these do the results of the employee's thrift as well as the employer's gift. But the cost per dollar of benefits is being materially reduced by funding and is to an increasing extent being stabilized by actuarial valuation of liabilities.

CHAPTER II

PURPOSES OF PENSION PLANS

BENEVOLENCE

A variety of purposes move employers to institute pension plans. In setting forth these purposes many employers are inclined to stress their purely benevolent aspect. Unquestionably, humanitarian impulses play a part in the establishment and operation of a considerable number of plans. In these cases the employer, sensitive to a certain advanced public opinion, regards himself morally bound to make some provision for the dependent old age of employees who have become superannuated or incapacitated in his service. A high official of one of the largest corporations in the country, in reply to the question whether he would repeat his pension experiment if choice were given him, answered with an emphatic "yes." He went on to state that the company he represented felt a distinct sense of obligation to its employees, and that no man should spend thirty or forty years of his life in its service and then find himself destitute. This point of view is given official expression in the following preamble to a certain pension plan:

"The Stockholders and Directors of the Company, having in mind the present and future welfare of the employees of the company, have inaugurated a Service Pension System after considerable thought and deliberation."

Benevolence on its own account, however, cannot long be indulged by the management of a business, particularly when it begins to involve substantial expenditures. To be a legitimate charge on the corporation's income, it must be subordinated to other objects—such as are at least of potential advantage to the business. Of such objects there are several, which are briefly considered in this chapter.

RECOGNITION AND REWARD OF LONG SERVICE

First and most common among the avowed purposes of pension programs is the desire to recognize and reward long

and faithful service on the part of employees. A representative statement of this attitude is the following, from the plan of a large industrial corporation:

"A Pension Fund has been established as an evidence of appreciation of the fidelity, efficiency and loyalty of those employees who by long and faithful service have earned an honorable retirement."

What distinguishes this view from the ostensibly charitable one referred to above is the recognition that a pension is something earned by the employee, not merely the free gift of the employer. It is earned by dint of length of service, which is of definite value to the business. The granting of a pension is, to be sure, a voluntary act of the employer who, in most cases, admits no contractual obligation on his own part nor any legal right thereto on the part of the employee. But he does acknowledge a moral obligation and a corresponding moral claim to the payment of a pension actually "earned."

INCENTIVE TO LONG SERVICE AND REDUCED LABOR TURNOVER

While the elements of appreciation and reward are stressed in reference to those employees who have attained the age of retirement, the emphasis as regards the members of the active force is upon earning the reward. For the latter the purpose of the pension is that of encouraging them to give the kind of service which is of greatest value to the company. Primarily this means long and continuous service. This concrete aim is often present, though unexpressed. Sometimes it is suggested, sometimes frankly stated, as in the announcement of a pension plan by a large automobile manufacturing concern, which says:

"These plans will be considered . . . as a participation in the profits of the corporation, rewarding employees for the increased value of their services which result from continuous employment, and from cooperative effort."

And further, they

"are intended to increase the number of continuous service employees, and to eliminate, so far as possible, the number of transient employees."

The reduction in labor turnover, which is implied in long and continuous service records, is a material saving to the company. Every change in personnel involves some temporary loss in efficiency, while unbroken service makes for familiarity with the task and proficiency in performing it. Inasmuch as this added productivity is not stipulated in the contract of employment, it may in a sense be regarded as not fully covered by wages paid. The promise of a pension as the reward of constancy logically, if not actually in every case, carries with it such a recognition of obligation on the part of the employer. It presupposes, moreover, that the expectation of earning the pension will operate as an inducement upon the employee to forego other advantages elsewhere and to cling to his job to the end. This motive is expressed by a certain financial institution in the following words:

"It is the hope of the Company . . . that those who become members of this organization shall remain with us permanently. Excepting in the cases of women employees who leave the organization to become married, it is our earnest desire that all who join our ranks shall dedicate their lives to this work."

In consideration of such proof of loyalty, the company, in this case,

"has made provision to safeguard the personal needs of all members of the organization against every possible contingency. . . ."

Specifically as regards the superannuated employee,

"ample provisions have been made for his livelihood, not as a gratuity, but as a part of the earnings which he has had a share in creating."

ENCOURAGEMENT OF LOYAL SERVICE

The manner in which employees may be expected to "earn" their pension reward may include, besides length and continuity of service, also quality of service. Here belong those appeals to loyalty and efficiency which are frequently incorporated in pension plans as the purpose or expectation of the employer in establishing them. An example may be cited in the words of the president of an important western railroad announcing the pension plan of his company:

" . . . I sincerely hope that all will show appreciation of it by increased zeal and loyalty. Nearly every employee has it in his power to benefit the Company by his work and influence, or to injure it by carelessness or indifference. The system about to be introduced will be carried out wholly at the expense of the Company, and it is only fair that those whose future is thus made safer should in return render the best service of which they are capable."

The aim of promoting loyalty, efficiency and a cooperative spirit on the part of the employees by virtue of the pension prospect is expressed with varying degrees of directness in different plans. One states it thus: "The Roll of Honor awaits those who loyally and faithfully serve." Another sets forth that the plan has been adopted by the company—a life insurance company—"in the expectation that economic efficiency in the administration of the business of the Company will thereby be promoted." Still another places the emphasis on the quality of the labor supply rather than of the service as such: "Hoping to be thereby better able to procure and retain employees of experience and ability, the Company has adopted the following plan for the payment of annuities."

RESTRAINING INFLUENCE

It is a significant fact that most pension plans, as at present conducted, make the award in every case dependent on the discretion of the employer. In view of this fact, it is but a step from using the promise of a pension as an incentive to using it as a deterrent. Indeed, the efficacy of the promise for stimulating continuity or quality of service depends in large measure on the employee's realization that the pension may be withheld in the event of his service falling short of expectation on either score. That some pension plans actually have this double purpose appears from a statement like the following by the president of a southern railroad company:

"Pensions are granted as a reward for loyal and faithful service. No man can hope for nor should expect one, except in recognition of an unbroken record of such service."

The use of a pension system as a deterrent or disciplinary device is directed, among other things, against strike action

by the employees. A great many plans contain a rule like the following:

"Persons who leave the service thereby relinquish the pension privilege, and if they re-enter the service they shall be considered, for pension record purposes, as new employees."

The intention is less veiled in the following phrasing of the rule:

"If an employee, after leaving the service voluntarily, or by participating in a strike, shall be re-employed, he shall be considered in his relation to the Pension System as a new employee."

The same end is accomplished indirectly in many plans by making the test of "loyalty" and "morale" include the employee's behavior at a time of unrest in the force.

ELIMINATION OF SUPERANNUATED

One of the most important though least readily avowed of the purposes of a pension plan is to be found in the freedom it confers on the employer to eliminate from his force any employee who, owing to age or incapacity, is no longer efficient at his work. The necessity of discharging a faithful employee grown old and infirm in the service is not a pleasant task for any employer to face. It frequently impels him to take refuge in various uneconomic expedients, such as retaining the employee on the payroll at reduced pay, assigning him to other employment less arduous, or doling out relief to him from time to time.

A regular scheme of retirement benefits, operating under established rules and designed to make equitable provision for superannuated and incapacitated employees, affords a more constructive way out of the dilemma. The existence of such a scheme relieves the employer's conscience. It absolves him from moral responsibility for the fate of retired employees who definitely fail to qualify for a pension under the rules. Especially in those cases in which a maximum retirement age is fixed, it makes a worker's separation from the force something in the nature of a routine act of administration. In any case, a worker's declining efficiency or adaptability renders his elimination desirable from the standpoint of the employer. The pension enables the latter

to bring this about, while at the same time giving expression to his sense of equity or appreciation of the sacrifices implied in long and efficient service. From the standpoint of the employee, moreover, the retirement is effected in this manner with a minimum of hardship or injustice and may even be accepted by him as a positive boon. This view of a pension as a form of compensation for retirement is well set forth by the president of a southern railroad in announcing the company's plan to the men, as follows:

"The inevitable and often unavoidable risks to which railroad men are exposed, and the decline of muscular agility and liability to mental fatigue, which increase with the advance of years, after the critical period of life is passed, make the retirement of the operating staff of a railroad imperative. But these very reasons throw on the administration the obligation of recognizing the service of the men who have for a long period of years faithfully worked for and with the corporation."

STIMULUS TO EFFICIENCY IN THE ACTIVE FORCE

The operation of a retirement system as an aid to timely elimination has not merely this immediate purpose of facilitating for both parties the transition from an active to a passive status of the incapacitated employee. It is expected to produce further advantage for the business through increasing efficiency in the active force. Such gain in efficiency is expected to follow in three ways: First, from the substitution of younger and more active for the old and less active workers. Thus the employer would secure greater productive power at each replacement without a corresponding increase in cost. In the second place, by expediting promotion in the ranks, the system of retirement is intended to stimulate the rest of the force to increased effort and emulation. And, finally, the relief of the worker's mind from care as regards old age, which the prospect of a pension affords, is counted on to make him more contented and consequently more efficient in his work.

PSYCHOLOGICAL AND MORAL EFFECTS

Not the least of the anticipated advantages from a pension plan, as viewed by employers, is its psychological effect.

The humane and enlightened policy of the management with its concern for the welfare of superannuated workers is expected to be reflected, other things being equal, in an improved morale within the force. And beyond this, the effect upon public opinion in the community, as long as pension plans are still somewhat exceptional, is considered a matter of consequence. The reputation of being a liberal employer enables the company to attract and retain in its employ the most desirable type of worker, while at the same time pursuing a policy of replacing those of a lower desirability in a favorable labor market.

It would be possible to enumerate further aims and purposes pursued by individual employers here and there in establishing systems of superannuation and disability benefits. But most of them would be variants of the major aims and purposes already mentioned. Some pension plans, indeed, set forth a combination of purposes, thereby making more sure of success on one score or another. The plan of a middle western life insurance company is introduced with the following inclusive statement of aims:

"These benefits are granted voluntarily by the Company in order to attract to its service a high grade of employees; to encourage continuity of service, and to obtain the benefits of the increased efficiency resulting therefrom; to enable it to discontinue without hardship those who are past their best work, and thereby hasten the promotion of younger employees; and to relieve itself from any moral responsibility, real or alleged, in cases where employees die or become disabled, leaving dependents unprovided for."

Having reviewed the major objectives and motives that actuate employers in setting up pension systems, it is desirable, before analyzing the character and specific features of pension plans themselves, to consider, in the light of the experience with these systems, to what extent the general objectives above described have actually been attained.

CHAPTER III

EVALUATION OF RESULTS

It is not easy, even for the employer himself, to discern with certainty the particular kind and degree of advantage which he derives from the operation of a pension system in his plant. He may feel fully convinced of its beneficial character in general and yet be unable to put his finger on the specific improvement wrought by it in his business. This difficulty of checking up the value of a particular pension plan is due in some cases to the briefness of the period during which the plan has been functioning, so that its full effects have not come into view. In other cases, the effects themselves are not subject to ready measurement or precise comparison or cannot easily be attributed to the pension system as the sole or main cause. It is almost inevitable, therefore, that judgments concerning the advantages actually achieved for a business by such a system are more often in the nature of impressions, opinions or beliefs than of accurately tested knowledge.

The judgments of employers as expressed in their replies to this question range all the way from unqualified satisfaction to out-and-out disappointment with the results of their plans. The great majority are optimistic, though it is quite possible that their optimism rests on the relatively low cost of pensions during the first few years. In that case, later experience may lead to a very different estimate. Negative or adverse appraisals of pension systems in practice are comparatively few. It is to be assumed that employers will be more reluctant to admit failure than success, and that in many instances their private convictions contain reservations which are not avowed. Still, in those cases in which they are on record as critics, they throw light upon certain phases of the problem that are no less significant for being rarely emphasized.

RELATION OF BENEFITS TO COST

One of these darker phases is the matter of cost. When pensions are paid as a current expense rather than under some system of funding, they tend to create a rapidly growing financial burden that may in time become oppressive. It is on this ground that the personnel executive of a great manufacturing corporation expressed himself as opposed to the re-enactment by his company of the pension scheme in its present form. He felt that the pensions themselves were not large enough, while the cost was already large and constantly mounting. This complaint recurs with variations in several quarters where the scheme has been long enough in operation. Thus an important railroad company, which has one of the oldest pension plans in American experience, reports on this point as follows:

"It would be desirable if the rate of pension payments could be enlarged, but at rates now in effect when those on present pay-rolls become eligible for pension, it will require an annual payment of approximately \$1,250,000, and it seems impracticable to add to the prospective burden in the light of the present narrow margin realized or undertaken to be assured in railroad operation under the Transportation Act."

Among those executives who have given critical thought to the question of the results of pension systems in practice, few are inclined to regard the immediate benefits as justifying the cost. The majority, however, seem to be of the opinion that the intangible and indirect benefits are considerable. The basis for this opinion is stated by one company thus:

"One of the greatest worries of a workman is the thought of the day when as an old man he may be turned out on the street. Surely, if this nightmare is removed through a realization that his employer's pension plan will take care of him when he must lay down his tools through age or incapacity, there must be many years when the contentment that this realization brings will continue to be reflected in the quality and the quantity of the work of his head and hand and heart."

APPRECIATION OF EMPLOYEES

Another type of criticism by employers of the workings of their pension schemes is based on the failure of such schemes

to produce the intended results. If the original purpose of the plan was to reduce labor turnover, to stimulate loyalty and efficiency, and otherwise to improve industrial relations, the non-realization of these benefits in any particular may condemn the plan in the employer's eyes. An employer who inaugurated his plan in the expectation of earning, if not the gratitude, yet the appreciation, of the working force, may well feel disillusioned by evidences of indifference or even hostility toward his efforts. A certain employer, conducting a newspaper in a small city, writes that in his case the plan "pleased the old employees and displeased the young, who in spite of assurances to the contrary, think their pay would be bigger if there were no pension system." In reply to the question as to what modifications in the plan his experience would lead him to suggest, he states that he would not install any pension, for he does not think the employees appreciate it, and that he would simply follow his former plan of caring for old employees by easy jobs or gratuities.

The difference in the reactions of young and of old employees to the pension plan has been observed by various employers and under diverse circumstances. It is but logical to expect that the older a man grows in the service the more highly he will value the pension prospect and the more conservative he will be about doing anything to mar or break off his service record. Considerations of prudence and self-interest, added to a natural growing disinclination to change, will tend to attach him to his job until retired. This expectation is borne out by experience, but only up to a certain point. There are situations in which the external pull upon the employees is such that even some veterans yield to it. The executive of a western railroad finds the value of his pension plan inconclusive as a creator of loyalty in the force. He writes:

"It has been generally supposed that it would have some tendency in case of strike to hold back the men, but two tests which we were compelled to undergo did not prove this. I believe it has an effect upon the long service man, but certainly not upon the young man who seems to care only for the present."

LOYALTY OF WORKING FORCE

That the existence of a pension system does not of itself afford the employer protection against strikes is the testimony also of a street railway company in a mid-western city. This company reports as follows:

"A very large proportion of motormen and conductors were out of the service during the strike at the beginning of 1918. It will therefore be a considerable number of years before any of that class will have a sufficient term of continuous service to be eligible for pensions."

Over against this experience we have to set the assertion of a public utility corporation in an eastern city, which names as specific advantages gained from a pension plan not only a reduction in labor turnover, but also its functioning as a deterrent in strikes. The specific evidence for this conclusion is not given. Another street railway company credits its plan with supplying a "great stimulus to other employees to keep [their] record clear, that they, too, may benefit should they retire or become disabled."

There is, moreover, a widespread belief among employers that their pension plans operate by one means or another to reduce labor turnover and to enhance loyalty. Some refer in this connection only to the older men, whose mobility is relatively low even in the absence of a pension system. Others make no distinction of age. For example, a southern public utility finds that "employees who have been with the company for a considerable length of time are inclined to continue in their employment and naturally and necessarily feel a greater interest in the welfare of the company and are more loyal to it."

Increased loyalty or morale of the working force is one of the intangible results most frequently claimed for a pension system. It is expressed in various ways. Thus, a bank, in appraising the advantages of its pension plan, writes: "Has good effect on morale of those old enough to think seriously of the future." A railroad company finds its pension plan to act as "a moral stabilizer. Since the establishment of our pension system we have felt an undercurrent of satisfaction and appreciation gradually developing amongst the em-

ployees." A manufacturer reports: "This pension plan carries a peace of mind and contentment to our older workmen." A textile concern states: "We believe what we do has a tendency to promote loyalty and cooperation." Another claims "increased interest and loyalty from employees"; still another, "promotion of friendly relations."

EFFECT ON LABOR TURNOVER

Equally specific is the claim of an eastern manufacturer of machinery, that a pension system serves to stabilize the working force. He declares:

"We see a great practical advantage in our pension plan. We have a business of great and complicated variety, where experience counts heavily, especially in the case of foremen and supervisors generally as well as of specialized workmen. Among this class of high-grade and experienced specialists we have a very small turnover. During the war and in the business boom after the war, when there was an extraordinary demand for men of this type, our men remained with us, and we know that our pension plan was not inconsequential in making them content to remain."

Speaking with the assurance of positive knowledge, another New England manufacturer reports that his system "cut down labor turnover and increased, if possible, loyalty." This same employer concludes: "We receive greater benefits than it costs us—one per cent on a pay roll approximating \$1,500,000 per year." A bank attributes to its plan "greater stability of tenure of employment." An oil company believes it "keeps worthwhile employees on the job." A machinery concern writes: "It has probably enabled us to keep men in our employ who would have gone elsewhere." An insurance company notes the "retention of employees to retirement age by the assurance of pension benefits—thereby reducing turnover." And a newspaper publisher asserts: "We have one of the finest records in low-employee turnover, in organization morale, etc., of anyone in our industry. A certain amount of this is due to the pension plan."

The evidence, however, is not all on one side of this question. In fact, there is ground for serious debate as to the efficacy of a pension plan for prolonging under all circum-

stances the average service period of employees. One manufacturing corporation, which has made a careful and candid inventory of its experience under the plan, arrives at an adverse conclusion:

"It was . . . thought that the pension system would be an inducement to men to stay with us and help reduce the turnover. In actual practice, however, the pension system seems to be of very little inducement to the younger men, and it becomes of consideration to them only after they have been with us for a considerable length of time. Men of that length of service are usually anxious to stay without the added pension inducement. It therefore has not accomplished much in that respect. We believe that its principal value has been one of good will."

Another manufacturing executive, similarly skeptical of tangible results, contents himself with a moral advantage. The employer with a social conscience finds in a pension plan a channel for discharging a human obligation to his less fortunate fellows. This one writes:

"We have had very few pensioners, but we have had the satisfaction of knowing that we have provided an equitable plan for caring for our aged and disabled employees. It is doubtful if the younger employees appreciate it and questionable if the older employees' service period is lengthened because of it."

GOOD-WILL

Not a few employers regard a pension system as justifying its cost if it exerts a beneficial influence on the "mental attitude" of the employee. This influence may be either direct or indirect. Thus it is the conviction of certain industrial executives that while to the younger man the value of a pension plan is doubtful, he is largely subject to the influence of the older employees who are keenly interested in that feature. In many cases, it is maintained, younger men who might leave the service are induced by older ones to stay in it, and the pension plan is credited with directly promoting this spirit of good-will.

A still more intangible effect attributed to pension systems by a number of employers is that upon public opinion in the community. This is of value from several points of view. Many industrial leaders are interested in forestalling legis-

lation which would establish compulsory and universal old age pensions in place of voluntary plans, which they favor. On the other hand, the good-will of the community is worth hardly less to some corporations than the good-will of the working force itself. This applies especially to small industrial centers, where the one directly affects the other and indirectly affects the labor supply. From this point of view, a public utility corporation in the South reports: "The fact that aged and disabled employees are provided for influences public opinion favorably." A New England manufacturing firm, which operates its retirement system on an informal basis, says of it: "It satisfies our consciences and creates some little favorable impression on the community." A large industrial corporation observes that its plan "has created a certain amount of good-will for the company in communities in which we operate." A well-known public service company in a southern city regards the opinion of the community of such importance that besides giving a pension to an employee it also gives him a "Pension Certificate," properly signed with the seal of the company and framed. They write: "We have received a lot of publicity in neighborhoods where these certificates are hung on the wall of the homes and people visiting have been attracted by it and a general discussion ensues, which in most cases is favorable to the Company."

FACILITATING RETIREMENT

The one other major advantage which accrues to employers who maintain pension systems in their plants is the facility afforded by such systems for retiring superannuated employees when it is to the employer's advantage to do so. Since this is one of the main purposes for which pension systems are installed, its realization is naturally noted with satisfaction. Thus, one leading executive justifies his scheme on the ground of "providing a means for getting out of the service those who have reached an age where they are no longer efficient." The traditional method of shifting such employees to simple unskilled jobs becomes less and less practicable as the progressive specialization of all jobs calls for new qualifications in the worker. The executive in

charge of personnel for a metallurgical concern has stated on this point that, with the improvement in machinery, the number of jobs that could be filled by aged men were decreasing, and that on the basis of the experience of his company a definite pension plan was much to be preferred to the scheme of keeping the older men employed at unimportant work. And in another connection this executive notes as an advantage derived from their pension plan that they "are able to retire a man who through old age or disability is unable to do his work." A great railroad corporation derives from its plan "satisfaction in handling cases of diminished efficiency in late years of life." A textile concern sees in it an "opportunity to retire those physically unfit." A bank finds itself "able to retire aged clerks and replace them." An insurance company regards its scheme as affording an opportunity "to discontinue without hardship older employees and thereby hasten the promotion of younger employees."

Here, again, we find no complete unanimity among employers. Some regard it as a dubious policy to make of a pension system a means for compelling retirement even when no obvious hardship is thereby imposed. This is the view of an eastern manufacturer, who writes as follows of his experience:

"When we inaugurated the pension plan, we hoped to accomplish several things. When men in executive positions, such as foremen, etc., grow old, the whole shop over which they have supervision falls off in efficiency, so that we not only lose the value of the foreman's or superintendent's labor, but we lose through the inefficiency of all those working under him. Frequently these men are not financially able to retire, and it was hoped that the pension would permit retiring such men. As a matter of fact, however, we have used the pension system very little in this respect."

OTHER EFFECTS

In addition to the benefits thus far considered, there is still another group of effects ascribed to the operation of pension plans, which, while less frequently mentioned, are scarcely less important intrinsically. These are such as

collective and individual efficiency, selective improvement in the grade of labor recruited, training in thrift and the like.

There is some evidence for the claim that if managed with this purpose in view, even a non-contributory pension plan can be made a stimulus to thrift rather than a substitute for it. According to an employer who speaks from experience,

"A pension plan . . . should be considered a *supplement* to savings, and if workmen are made to understand this, a pension plan will not tend to develop improvidence instead of thrift. At the — Works we do not find that because we have a pension plan there is any tendency on the part of our older workmen to ignore our savings plan. As a matter of fact, our longer service men are very distinctly the better savers than those of shorter service.

"Of the 33 men pensioned in the last five years, 21 were saving, or about 64%, when they went on the pension rolls. Furthermore, of some 532 men with ten years' service or more now in our employ, 409, or about 77 per cent, are participants in our savings plan at the present time."

Several or all of these various gains from pension schemes are claimed by a number of employers. For example, an important railroad system whose annual pension disbursements amount to more than three-and-a-half millions of dollars, writes as follows:

"It is the consensus of opinion of the officials of the companies associated that the pension plan has been a very good investment from a purely business standpoint. Among the definite beneficial results which might be mentioned are increased loyalty of employees, increased efficiency of individual employees, reduction of labor turnover, attraction of a superior type of employees, and increase in thrift of individual employees."

Generally speaking, the experience of the railroads with pension schemes has been, judging from their own statements, uniformly beneficial to the companies. This fact is probably connected with the exacting and responsible character of railway service, which demands as a corollary a systematic retirement policy. But besides the railroads, we find the local public utilities, industrial plants of various kinds, as well as financial institutions reporting favorable results from their respective pension schemes. On the basis of these reports, taking the purposes and aims, previously

outlined, as a criterion, the available evidence points to the conclusion that, point for point, those aims are realized in practice. Not in all cases, to be sure, nor on every count in particular cases, but on the whole and by and large. The only qualification of a general verdict of success that should in justice be made is the caution expressed at the outset as to the objective accuracy of the estimates and impressions reported.

CHAPTER IV

TYPES OF PENSION PLANS AND THE RELATION OF EMPLOYERS TO THEM

Pension plans arise out of the necessity of adopting a systematic procedure for dealing with superannuated employees. They arise because the older unsystematic manner of handling this problem no longer meets the need, or does so at too great a cost.

GRADUAL RETIREMENT—TRANSFER AND DEMOTION

The older method, still widely prevalent in industry, is that of keeping old employees on the payroll, while shifting them to other work which they are still able to do, or reducing their wages in keeping with their declining efficiency. A newspaper plant in a southern city, which employs about sixty-five people, reports that it is able in this way to take care of its superannuated workers. "The general plan is to try and keep them employed in some way, giving them such duties as they can perform." Nor is the method employed exclusively by small firms. A manufacturing concern with a force of approximately four thousand employees, writes:

"As employees become incapacitated for the work they have been doing, we naturally transfer them to another place in the organization which they may be able to fill in spite of increasing years or disability to carry on what they have been doing previously."

A closely related method is that of reducing the wages of such individuals in accordance with their reduced efficiency on the job. This method is illustrated by the practice of a public utility corporation, described as follows:

"Each superannuated employee receives the personal attention of the president of the company. It is the policy of the company to retain in its service at half pay those employees who become incapacitated through accident, disease or old age, provided they have been in the service of the company several years."

This is a more humane approach to the problem than merely to scrap them as useless; but it is no solution, since it is applicable only within narrow limits. The average employer sooner or later finds it an uneconomical and unsatisfactory arrangement and looks for a more equitable scheme of retirement. It is at this point that a pension system of some sort usually comes into existence. The development of policy here indicated is exemplified in the experience of a large western industrial concern, as described by its executive:

"It has not been the policy of the company to dismiss employees from its service on account of advancing years. On the contrary, it has pursued the practice of providing suitable employment, or making other special provisions for those who, after long years of service, were unable to continue their regular work. The Service Retirement Plan is an outgrowth and enlargement of that practice, and establishes a basis for providing an income for employees who have grown old in the service."

Some employers who have found the old method inadequate for their purpose and yet have not fully adopted the new, are pursuing a policy which combines the two. This transitional policy is to keep old employees at work as long as possible, adjusting their duties and compensation to their declining physical capacity. When this proves impracticable, allowances are granted as it seems suitable to do so, each case being treated "on its merits." The result is that very few in proportion to the number of employees are actually retired.

INFORMAL POLICIES

The form which the individual merit scheme of retirement is apt to take in its fully developed stage is one leaving the largest possible scope to the employer's judgment in the disposition of each individual case. He reserves to himself the right to determine not merely who shall be retired, but also the conditions under which each retirement shall become effective, the amount and duration of the allowance, as well as other features of the arrangement. Under these conditions, the allowance is in the nature of a charitable gift or dole designed to relieve or prevent distress in certain cases. It is

not subject to rules or formal procedure but only to the will, or even the passing whim, of the employer and to the prosperity of the business. It cannot be properly called a pension, nor is it regarded as such by the employer. A policy of this character is reported by a large number of concerns, mostly small or of medium size, of which the following is typical. The manager of a midwestern manufacturing concern writes:

"We have no regular pension plan. We handle each case individually. These matters come directly under the manager's observation, and after sizing up the case, the condition of the family, and their ability to take care of themselves, we try to be humane and charitable. We have cases of widows whom we are now supporting, permitting them to take care of their children and send them to school. . . ."

The danger inherent in this method, of putting a premium on thriftlessness, is recognized by some employers and guarded against. One writes:

"We have no pension system. Our general feeling has been that it was better to encourage saving, or insurance, or other means by which out of current wages the men could themselves provide for their old age. This has seemed to us on the whole the more American self-reliant basis.

"We have, however, appreciated that unforeseen misfortunes may come and in our minds we have drawn a distinction between those who are able out of their savings to care for their old age and those who may have met with unexpected reverses. For the latter we have made it a practice to have small weekly payments continued through a period proportionate somewhat to the length of employment with us, . . . our thought being that we would lend a hand to those who were unfortunate, but would not substitute a pension as a gift from an employer in the place of thrift and self-reliance on the workman's own part."

The emphasis upon thrift and self-reliance as alternatives to pensions provided by the employer is consistent with the charitable attitude toward individual cases of misfortune and distress. The measures of relief, which are considered appropriate for such cases, are essentially emergency measures and are not regarded as constituting a general policy. The condition of old age dependence, making relief necessary at all, is regarded as exceptional, while independence is presupposed as the normal state. In this spirit a manufacturer employing three hundred persons writes as follows:

"We treat each employee as an individual case according to his real need. We believe in good wages, full time employment, and independence of wage earners, so that pensions will not be necessary."

In order that the treatment in each particular case may be as accurately as possible fitted to the needs and deserts of the individual retired, his circumstances are more or less carefully investigated and taken into account by the employer. Among these circumstances are the worker's physical condition, his financial condition and resources, his home conditions, responsibilities, number of dependents, station in life or standard of living, accustomed wage, length of service and quality of service rendered. If on all these counts and others the individual is found to be deserving of assistance, the form and extent of such assistance still remain for the employer to determine as he deems fit.

Advantages Claimed

This large arbitrary element in the situation is viewed by many employers as a distinct advantage over a more formal scheme in that, on the one hand, it allows greater flexibility and adjustment to the individual case and, on the other, enables the employer to keep his pension expense at a minimum.

An additional excellence of the informal policy, as seen by some employers, is its moral superiority over any more impersonal procedure. There is grace as well as satisfaction to be gained from the kind of giving that involves more than an act of bookkeeping. This view is voiced by one manufacturer in the following communication:

"Our pensions are all granted on individual merit and not by a set plan. We are not favorable to such [set] plans for smaller industries where the executives should know personally the circumstances of all of the older employees. The personal touch takes away the curse of the pension plan, from the writer's standpoint."

The "personal touch" with pensioners is regarded with favor by these employers on the ground that it insures fair and proper treatment for the individual and, further, that it keeps the plan from becoming a soulless and perfunctory routine. "Any system," writes another employer, "has the

disadvantage of being unfair in some instances; more than fair in others. The system should not cover the *average* case. We have very good evidence that we are obtaining much better results by handling each case individually rather than *en masse*."

The consideration of keeping down the expense is often decisive in favor of an individual merit policy of retirement grants. Such a policy, exempting as it does the employer from any definite obligations in the matter of pensions either present or future, may be carried on with varying degrees of liberality and prevented from becoming burdensome at any time. The fluctuations and uncertainties of business may dictate to an employer a conservative course in assuming pension liabilities, and the adoption of an informal plan is his solution of the retirement problem. To be sure, it is a compromise solution, since in the long run it may become increasingly difficult to make equitable decisions, or such as are conceived as equitable by the employees concerned. Thus a bank, which has been operating a pension scheme on an "individual merit" basis and granting as allowances "what the Board of Directors in their judgment feel the respective employee can get along on comfortably," writes:

"We shall soon be faced with the problem of a growing number of pensioners and it will be necessary to adopt some definite pension plan."

But for a time at least, and under conditions where the employer can afford to be liberal in its administration, an "individual merit" plan may serve his purpose even better than would a definitely regulated system of pensions. This view is shared by a considerable number of the smaller employers, one of whom writes as follows:

"It has seemed better to us to consider separately all cases of employees who might need a pension rather than to have a definite pension plan. Each division superintendent is required to bring up for consideration at stated intervals the names of all old employees who might be considered for pensions. These cases are considered separately by the management and pensions awarded according to the individual needs. While this method might not be practical in an industry employing many thousands of people and spread over large areas, it has proved eminently successful in our case."

There is an almost continuous transition from the informal retirement policy on an individual merit basis to the formal discretionary type of pension plan which, in turn, shades into the other extreme of limited contractual and quasi-automatic plans. This intermediate type, designated as "formal discretionary," is distinguished from the informal type, which has just been described, primarily by virtue of its more or less definite structure. But structure in a pension system means financial liability on the employer's part corresponding to an expectation of benefit on the employee's. An informal policy, while recognizing the problem of retirement, attempts to meet it in retail fashion, handling each case as an independent issue without regard to any other case. The employer assumes no obligation since he holds out no promises and raises no expectations. His occasional acts of charity establish no precedent, nor are they logically predicated upon any specific performance on the part of the recipient. Length of service or other definable contributions to the success of the business do not constitute sufficient grounds of eligibility, even though they may be taken into consideration as supporting factors in a particular case.

While the charitable motive does operate within more or less wide limits under the individual merit plan of awards, other motives, distinctly economic in character, largely determine decisions. Among these is the effect upon the active force of humane treatment accorded to some of their number at retirement. Another is the opportunity afforded "to compel retirement in cases of expediency." As regards the choice of method in general, as between one type and another, the decisive consideration is frequently that of cost and financial burden involved. A formal pension system committing the employer under certain conditions to the payment of fixed amounts to retiring employees tends to become an expensive undertaking. The management of a small or moderate-size concern, especially if its business future is not yet secure beyond peradventure, may well hesitate before embarking upon such a program. The elasticity of a scheme that is not governed by rules nor hampered by claims either contractual or moral, commends itself to the type of employer who prizes his freedom of

action. Moreover, if the working force is relatively small and direct personal contact between the employer and each and every member of it a workaday fact, the employer's final judgment of merit as between one individual and another has less of an arbitrary quality than it otherwise would. It is indeed but an extension of his ordinary managerial functions, analogous to that of selection, promotion, discipline, and the like.

TRANSITION TO FORMAL SYSTEM—DISCRETIONARY TYPE

As the business expands, the close personal relationship between management and men gives place to a more and more indirect and impersonal one. A determination of merit is no longer feasible except at second or third hand. In order to facilitate decisions and to insure more nearly equitable awards, the employer devises certain regulations and forms of procedure and establishes certain machinery of administration, all of which in practice not only guide but circumscribe his discretionary powers. The function of considering applications for pensions and of acting upon

TABLE 9: ADMINISTRATIVE BODY IN PENSION SYSTEMS

Board of directors of company.....	33
Executive committee.....	9
Company.....	11
Board of officers and directors.....	7
Board of officers and managers.....	8
President.....	5
Treasurer.....	1
Finance committee.....	1
Operating committee.....	2
Receivers.....	1
Pension Board or committee.....	110
Board of trustees or commissioners.....	22
Relief department or cooperative association.....	6
Pension department.....	3
Welfare director or committee.....	2
"Old Guard" employees.....	1
Insurance company.....	2
Not reported.....	24
Total.....	248

HOW CONSTITUTED

Management appoints own representatives.....	210
Management appoints own and employees' representatives.....	7
Management appoints and employees elect representatives.....	5

them according to the rules is usually delegated to a committee representing the management. In the case of relatively small concerns it is not infrequently exercised by the directors themselves or by a sub-committee of the board. In other cases, an official or group of officials of the corporation acts on its behalf. Sometimes employees are given a measure of representation on the pension committee, although the number of such cases where the representatives are freely elected is negligible even under contributory plans. Table 9 lists the various forms under which the administrative pension authority appears.

Rules and Standards

Having set up this machinery and deputed to it certain powers and functions, the employer lays down certain more or less definite requirements as to age, length and continuity of service, and sometimes physical condition, which the applicant must satisfy to be eligible for pension benefits. He also formulates a definite basis or rule for computing the amount of the benefit in each case by reference to years of service, average salary or wages, and similar measurable factors.

At first these standards are flexible and may be stretched or waived to suit the needs of the individual case or the convenience of the employer. Later they tend to become rigid and uniform and to eliminate more and more the uncertainties of individual judgment. The award of a pension comes to be a tacit if not an explicit promise, though always a conditional one. On the other side, it sets up a more or less definite expectation and claim to benefits. Employees become applicants for pensions in regular order and according to prescribed forms. An administrative machinery is created in the form of a committee or board of trustees, consisting usually of officers of the corporation. This board is charged with the task of considering all applications for pensions and making awards in accordance with the facts in each case. In this function, the board may be assisted by the recommendations of department heads, superintendents or investigators, but its judgment is not bound by them. To the board is entrusted the duty of applying the rules as officially laid

down, but its discretion consists in the interpretation of the rules in specific cases, and its jurisdiction in this respect is final. It may also, subject to approval by the board of directors, modify, amend, suspend or wholly repeal the rules at any time at its discretion.

Limiting Liability of Employer

The retention of this far-reaching power in the hands of the employer, though conservatively exercised in practice, is designed to protect him from eventual embarrassing claims for pension allowances. The question as to when claims become embarrassing is also for the employer alone to answer. The same motive of limiting liabilities on account of pensions which leads many employers to elect an informal policy, impels others to retain as wide a scope for discretion as may be consistent with a formal plan. They have assumed a voluntary burden in adopting a pension plan. They carry this burden gladly for the sake of the expected advantages from the operation of the plan. But they wish to keep it from becoming a contractual liability and thus creating legally valid claims against them. In this effort they stress the purely voluntary character of the undertaking and frequently go so far as to insist that all pension allowances granted by them are gratuities and nothing more. Most pension plans of this type contain a clause whose purpose it is to exempt the employer from all effective liability under their terms. The following is an example of such a saving clause:

“This Pension System has been established voluntarily by the Company; and it may be amended, suspended or annulled at any time at the pleasure of the Company.

“It is also expressly understood that every pension hereunder will be granted only in the discretion of the Company, will be continued only at its pleasure, and may be revoked by it at any time.”

Whether from a desire to keep their pension system from falling into spiritless routine, or with a view to forestalling excessive financial demands in consequence of mounting pension costs, many employers reserve still other prerogatives and powers. These pertain, in the first place, to the

granting of pensions as they become due, and, secondly, to the continuance of those already in force. Generally speaking, employers operating formal pension plans regard them as constituting a certain moral obligation in so far as employees conform to the stated conditions for benefits. They implicitly admit this obligation, even while formally insisting upon the voluntary and gratuitous character of all allowances. The formulation of this technical waiver of liability frequently appears in some such language as the following:

"The Pension Plan is purely a voluntary proposition for the benefit of faithful employees, and constitutes no contract and confers no legal rights upon any employee."

No Vested or Contractual Rights Conferred

The establishment of a pension plan of the discretionary type is not to be viewed as equivalent to a promise, still less to a guarantee, of a pension to anyone. It does not curtail the employer's right of discharge, irrespective of an employee's length of service or of what he might regard as a moral claim to benefits by virtue of such service. This position is clearly set forth in the following provision:

"This Company reserves its right and privilege to discharge from its service any employee when its interests so require without liability for pensions."

Of greater practical import is the second type of reservation, namely, that pertaining to pensions already in effect. Many plans not only expressly "reserve the right to deny pension allowance to any employee," but also "to suspend, terminate or permanently discontinue any allowance already made." Normally, a pension allowance once granted may be presumed to continue during the life of the beneficiary and to be terminated only by his death. But in fact, this rule is subject to more or less wide exceptions. In addition to prohibiting the assignment of allowances and the taking of employment with competitors, most plans contain a qualification to the effect that, for example,

"Pensions may be withheld or terminated in the case of misconduct on the part of the beneficiaries or for other cause sufficient in the judgment of the Pension Board to warrant such action."

One plan goes on to specify that as to the misconduct "The President or General Manager of the Company shall be the sole judge, and his decision with respect thereto shall be final and conclusive."

The discretion of the management as regards the reduction or discontinuance of allowances already granted is in a large number of cases virtually unlimited. Many plans specifically assert the right of the employer to inaugurate such changes, with or without advance notice, whenever the condition of the business or the state of funds available for pension purposes indicates such action as expedient. In the effort to avoid one horn of the financial dilemma—the risk of oppressive costs—these employers choose the other—uncertainty of benefits. Thus, an interurban railway company in its pension plan declares:

"No right is given to any annuity allowance except . . . to the extent made possible at any time from such appropriations as may have been made previous to that time by the Board of Directors for such purpose."

A still broader denial of vested rights, not only as to new but also as to old pensioners, is embodied in a provision like the following from the plan of a shipbuilding concern:

"The continuance of the retirement allowance depends upon the earnings of the Company, and the allowances may at any time be reduced, suspended, or discontinued on that, or any other account, at the option of the Board of Directors."

The discretionary principle is carried to its logical limit when the employer requires the employee to subscribe to a contract by which all possible contractual rights and obligations under the pension plan are expressly waived. This is the practice of a middle western public utility corporation, which demands of every applicant for a pension that he sign the following statement as part of his application:

"In consideration of my application for a pension being accepted, I hereby agree with the . . . Company that said Company may reduce my pension allowance and may revoke the same entirely, and may alter or abolish said pension system and my pension allowance under it, and may alter the plan for its establishment and operation, and may alter or abrogate any rule for the establishment, maintenance or regulation of said system, and that said Company may exercise all the other rights

reserved to, or to be asserted by it, all in accordance with the provisions of said plan of, and the rules governing, the establishment of the Pension System of said Company."

It does not, of course, follow from the frequent recurrence of hedging provisions of this character, that the extensive powers reserved to the management are availed of with any degree of consistency. The data on this point permit of no positive generalization. Those powers are unquestionably used in a certain proportion of cases and to a sufficient extent to give more than a theoretical significance to their formulation. But for the most part the formulation is intended rather as a legal and financial safeguard to the employer, who does not wish to be committed to future liabilities of unknown magnitude. From this point of view the very excellence of a pension plan consists in its discretionary character. It commends itself to the employer in preference to the contractual type on the ground of affording him the desired scope for eventual modification or retrenchment on the cost side, without seriously impairing the credit of the system in its human aspect.

LIMITED CONTRACTUAL TYPE

A decisive step in the direction of a contractual pension is taken when the employer relinquishes the right to alter at will or discontinue the pension allowance, once it has been granted. The pension relationship thereby gains something of the certainty of a contract, which cannot fairly be revoked during the beneficiary's lifetime without his consent. The act of the management in placing a man on the pension roll on these terms confers upon him a vested right to the benefits appertaining to such status. A business depression, losses incurred, a reorganization of the company, or even the normal growth in the number of pensioners, may result in the curtailment or abandonment of a pension plan as to present and future eligibles. But pensioners already on the roll have a preferred claim to their allowance. This line of distinction between the discretionary and the contractual feature of pension allowances is clearly drawn in the following provision, where both features appear in juxtaposition:

"The Company reserves the right to change or abandon the Pension Plan after three months' notice to the employees; but any pension allowance in force shall continue without change."

Financial Security

Such a guarantee presupposes, ideally, as a financial *sine qua non*, an adequate fund invested independently of the business and unaffected by its vicissitudes. For if pensions have to be defrayed, like wages and other current expenses, out of current revenues, they are subject to the same causes of fluctuation and may have to cease during shut-downs or upon dissolution of the business. In the absence of such endowment, or of an adequate reserve, moreover, there is nothing to prevent a future board of directors from so altering the provisions of the plan as to repudiate the guarantee. And in those cases where the amount available for pension payments is arbitrarily limited in advance, the effect is automatically to reduce allowances when that limit is exceeded by total pension liabilities. A contractual pension in the strict sense represents a definite legal obligation as to pensions already in force, which must be met irrespective of the prosperity or even of the solvency of the business. The pensioner, moreover, looks upon his continued payments as his due and right, not as a mere voluntary gratuity from the employer that may be withheld without breach of faith.

Pension plans of the contractual type, even in its limited form, i. e., where the guarantee applies only to existing pensions, are relatively rare. Employers increasingly hesitate to commit themselves and their successors to a hard-and-fast system of pension obligations, unless they can see with certainty the ways and means of financing such a system. Their hesitation has been confirmed by experiences like that with the Morris and Company contributory plan. In this instance the acquisition of the company's holdings by Armour and Company in 1923 was accompanied by the non-recognition by the latter of the pension liabilities of Morris and Company. The plan had limited the company's pension liability to \$500,000, to which amount the company had voluntarily contributed additional sums totaling \$980,000. Officers and employees contributed to the pension fund 3 per cent

of their salaries. The contractual liability of the company for pensions was still further limited by Rule 31 of the plan, which said:

"No pensioner, even after payment shall have been so approved and ordered, shall be entitled to have any part of the capital or income of the Company set aside to provide for the same. All sums of money shall be paid out of the Pension Fund."

To the committee in charge of the fund was given power to "annul, alter, add to or amend any of the rules or regulations" governing the fund. At the time of dissolution of the business, this committee decided to liquidate the fund, and returned to all contributing employees their respective contributions in full, together with interest at 4 per cent. The resulting depletion of the pension fund virtually cut off some four hundred persons on the retired list from their customary allowances. To insure the continued payment of such allowances, there would have been needed a reserve fund of over seven million dollars, which was the actuarial value of accrued liabilities at the time. A group of these pensioners brought suit against Morris and Company to compel the establishment of such a reserve fund out of the assets of the late corporation. They alleged that they had been induced to contribute to the fund, to remain in the employ of the company in spite of offers of profitable employment elsewhere, and to make other sacrifices in reliance upon assurance given that for continuous employment with Morris and Company they should enjoy the continued protection of pensions for themselves and their widows. The suit was decided against the petitioners,¹ on the ground that there was no evidence of conspiracy between the pension committee and Morris and Company to absolve the latter from liability for pensions due or to destroy the fund. The practical effect for the pensioners, however, was no other than this.

Immunity from Legal Liability

To forestall ambiguity, most pension plans of recent inauguration clearly specify the employer's immunity from

¹ *Cowles v. Morris and Company* (Circuit Court, Cook County, Illinois, March 21, 1925).

legal liability under their terms. A case in point is the following clause from a contributory plan promulgated in 1924:

"While it is the purpose and intention of the Company that the administration of the Service Annuity Plan shall be in accordance with the provisions of this resolution, the Company does not so contract, or offer to so contract, and such provisions shall not confer any vested or contract right upon any officer, employee or agent of the Company, and any and every Service Annuity granted hereunder shall continue only during the pleasure of the Board of Directors, and may be modified or terminated by the Board at any time."

This reservation is, of course, essentially a reversion to the discretionary principle as governing the plan, and is calculated to nullify the binding force of whatever promises it holds out. It does not, however, deny the existence of a liability of a moral sort for pensions awarded or to be awarded. On the contrary, it is precisely because employers recognize such a moral liability but object to its legal enforcement against them, that they resort to the technical safeguards advanced.

But from the standpoint of the employee, nothing short of a legal liability seems adequate to create that confidence in the soundness of the plan which is essential to its usefulness in the long run. In support of this view may be cited the authority of the president of the Carnegie Foundation for the Advancement of Teaching, who in his annual report for 1924 writes as follows:

"The impracticability, even the impossibility of making a free pension contractual has been demonstrated again and again. A pension which is not founded upon a legally enforceable contract represents a hope, and not a dependable support in old age. Employers hesitate to commit themselves and their companies to future payments which may attain proportions beyond their ability to meet. Yet a legally enforceable contract is just what an employee must have if his old age is to be secure."

Right to Discontinue Plan Reserved

The full and unqualified guarantee of pensions, rare as it is in respect to those already in effect, extends even more rarely to those awards which are still in the prospective stage. As to these latter, the discretionary power of the

employer is asserted long after a corresponding liability is admitted. Furthermore, there is hardly a pension plan in industry that guarantees its own continuance, even for a single generation ahead. An employer may assume full responsibility for all pension payments already entered upon and, in addition, for the payment of all those pensions yet to be awarded during the further operation of the plan. But hardly ever does he assume what are known as "accrued liabilities" for the indefinite future. The right to terminate the plan is reserved even when future liabilities have been funded more or less adequately. Thus, one of the most liberal plans of this type provides on the point in question that, in the event of its permanent abandonment,

"employees then drawing pensions will continue to receive them, and employees who have to their credit at that time, ten years or more of continuous service, will be eligible for pensions under the above terms, upon the completion of twenty years of continuous service."

Another plan, that of a bank, stipulates as follows:

"The bank reserves the right to terminate the Fund at any time in the discretion of the Board of Directors. Such action, however, shall not affect the rights of those receiving pensions at the time such action is taken, nor of those who have contributed to the Fund for a period of five years. Officers or employees who have contributed to the Fund for a period of less than five years shall be repaid the amounts so contributed, with interest at the rate of 3 per cent per annum."

This provision on the basis of a twenty-year service minimum implies a guarantee of pensions for at least fifteen years to come. Beyond that the continuance of the guarantee would depend on the continuance of the business as a going concern. To make it independent of all eventualities, a fund, as already indicated, would have to be set up as a trust fund and securely invested outside of the business, preferably with a powerful insurance company.

An example of this method of guaranteeing future pension payments is found in a contractual plan promulgated in 1925 by a large financial institution. It contains the following provision:

"In order that the plan may be wholly removed from the risks of commercial business, the Annuities will be issued by the

Metropolitan Life Insurance Company under the supervision of the Insurance Department of the State of New York."

DIFFERENTIATION OF AIMS AND MOTIVES

Such a thoroughgoing financial policy supporting the guarantee of a pension corresponds to a distinctive conception in the employer's mind of its function in industry. As the informal policy of pension allowances is motivated primarily by charitable considerations, and as the dominant motive behind most discretionary plans is that of stimulating loyalty, morale, and efficiency in the active force, so the contractual pension has for its chief object the reward of long service. None of the other purposes are susceptible of that definite check upon their realization which would warrant the management in endowing pensions as a permanent charge upon the business. The immediate benefits there aimed at are moral rather than economic, and as such do not easily lend themselves to contractual compensation. They are by-products accruing indirectly on a basis of mutually satisfactory industrial relations rather than as a result of specific measures, like a pension system, directed deliberately to that end. The distinctively economic motive, present in all pension schemes but assuming first importance in the contractual type, is that of long and continuous service. This is a tangible fact of measurable material advantage to the business and properly rewarded as such by a pension. The pension is not only an equitable but an opportune reward in so far as the convenience of the employer coincides with his appreciation and with the necessity and expectation of the retiring employee.

To be sure, the quality of service rendered by an employee is not esteemed of less importance than its duration and continuity under a contractual scheme. It is merely taken for granted if the employee is retained in the service until the age of retirement. It cannot well be made a criterion of eligibility for pension under such a scheme, since it is not adapted to precise objective definition or standardization. The qualitative evaluation of an individual's service is necessarily a matter of personal judgment and is, in so far incompatible with the automatic operation of the scheme.

CONTRACTUAL PLANS

The fully developed contractual pension scheme is characterized by its relatively impersonal manner of administration. The officials merely apply the definite rules which cover virtually every contingency. Little room is left for discretion in granting, abridging, or terminating pension allowances. The guarantee covers the admission of an applicant to the stated benefits on the strength of his meeting certain prescribed conditions of age and length of employment. These conditions may differ for men and women, for optional and compulsory retirement, and for service or disability benefits. But in any case they are clearly defined and understood and are binding upon both parties alike. The whole arrangement is in the nature of a frank, business-like relationship, bearing none of the marks of paternalism or of arbitrary management which are characteristic tendencies in most discretionary pension plans.

A form of contractual pension which carries to full development the automatic principle is one which has been called a deferred annuity. It is a contributory arrangement by which the employee authorizes a stated proportion of his wage to be deducted and to be paid periodically, together with an additional contribution from the employer, to an insurance company. The latter issues to the employee at the end of each year a certificate which entitles him to draw an annuity, say, at age 65, equivalent to the income from the combined funds invested for his account during that year. Each year's contributions and certificate mark a completed transaction, and the benefits are cumulative. The employer is free, in case of necessity, to alter or discontinue the arrangement at the close of any year without detriment to the employee who is assured of the benefits already earned. The employee, on his part, is free to withdraw from the plan, or even from the service of the company, without forfeiting his equity up to date. In the event of withdrawal, even of dismissal, he has several options which may include the surrender of his certificates for cash. If he chooses to leave his investment intact, whether he continue his regular payments or not, he remains in possession of the policy paid for by the

contributions already made by himself and by the employer on his account.

Under pension plans of this type, definite benefits are guaranteed not only as to pensioners on the roll, but also as to all members of the active force who, by virtue of their own contributions to the fund, have established membership in it. The flexibility of the plan is preserved in principle, but not at the sacrifice of strict adherence to promises or commitments made. Thus, in the case of a certain endowed institution, whose scientific staff is covered by a deferred annuity policy, the following conservative provision takes the place of the more or less sweeping reservations so commonly found in pension plans of the discretionary and even the limited contractual type:

"The Trustees reserve to themselves the right from time to time to modify, amend, or repeal this plan, but in such event no provisions already in force relating to any person under the plan shall in any way be altered to his disadvantage."

The employer in this case is pledged to maintain his contribution of 5 per cent of the employee's salary throughout the latter's term of employment with the institution. This contribution ceases only at withdrawal by resignation, death, or retirement, and cannot be reduced, even in amount, except in the event of a general reduction of salary:

"The obligation of the Institute to contribute toward the payment of premiums on annuity policies shall be neither greater nor less than its obligation to continue to pay salaries at any stated scale to persons in active service, so that if misfortune should compel a reduction of salaries, its contributions toward the payment of premiums may be reduced in the same proportion."

The theory underlying this automatic type of pension differs from the other contractual forms in that it does not presuppose a lifetime of service before pension benefits can be earned. It may, to be sure, supply an inducement to long service by increasing the employer's contribution not only with increasing earnings of the employee but also with the latter's years of service. But it does not favor the use of a pension plan for binding the employee to the company irrespective of his conceived interests or inclinations. The reduction of labor turnover might be an incidental result,

but is not one of the purposes of this form of pension. A certain manufacturing concern which recently installed such a plan reports that although half of its employees are women, its turnover rate is only 18 per cent.

The justification to the employer for paying such a pension is two-fold. In the first place, it stimulates thrift on the part of the employee, who can earn the pension only by regular savings out of wages that are set apart strictly for old age or incapacity. In the second place, such a pension is frankly viewed as deferred pay, earned during the period of most productive employment and enjoyed during the unproductive years following retirement. At the same time, the basis of contributions being clearly determined for both parties from the outset, it is possible to foresee the costs with some measure of certainty. To that extent, the necessity for vague reservations as to the future liability of the employer disappears.

CHAPTER V

THE EMPLOYEE'S ATTITUDE TOWARD PENSION PLANS

The successful working of a pension system depends in no small degree upon the attitude of those who are its intended beneficiaries. If its inauguration is welcomed by the employees, who see in it a boon to themselves, their appreciation of its anticipated benefits is likely to be reflected in an improved morale. If, on the other hand, the plan is received with apathy or suspicion, much of its intended value or advantage to the employer may be nullified.

It is an assumption underlying the establishment of most pension systems in industry that they will be of tangible benefit to the business. Specifically, it is expected that workers will give better, more loyal and longer service, because they appreciate the provision made for them by the employer against the hazards of old age disability. It is on such an assumption as this that the cost of the system is justified to the stockholders. Whether it be true or false, only experience can tell. The evidence, as set forth in Chapter III, is not entirely conclusive. It may be that results obtained under some circumstances are not to be looked for under others. Certain it is that these expected benefits from a pension plan will be realized only to the extent that the plan actually appeals to the employees as a good thing for themselves individually and collectively.

INFLUENCE OF SEX AND AGE

Whether or not an individual employee will regard a particular pension project as in his own interest, depends on several factors. In part, the objective benefits promised and conditions imposed are decisive considerations; in part,

too, his time of life, domestic and other personal circumstances, determine his attitude. It makes a difference whether the employee be a man or a woman, if only because the occupational outlook of the two is apt to be radically distinct. It makes no less difference whether he be a young man, full of restless energy and optimism, who is prone to discount the contingencies of old age, or a man past the zenith of life who views the future with more or less apprehension. The former is usually indifferent to the remote prospect of a pension, if indeed he does not resent it as a restraint upon his freedom of movement. The right to choose and change his employer for any or no reason seems to him more precious than a concrete but remote and problematic advantage like a pension. Likewise, as between the alternative of higher wages now and an eventual retirement allowance, he rarely hesitates to choose the former. Hence, labor turnover among the younger men is but slightly affected by a pension system.

The employee past middle age, on the contrary, tends to view a retirement pension with favor. He can more easily visualize the day when physical decline will expose him to the chances of losing his job, and with it his very livelihood. The assurance even of an inadequate pension allowance after retirement is a source of mental comfort to him. To gain this benefit he is willing to accept, as a rule, such conditions and requirements as may attach to it. Under these circumstances, loyalty to his job, easily identified with loyalty to the employer, tends to become a dominating motive in his life. Where an employee has arrived at old age at the time of the establishment of the plan, its benefits are for him unexpected and unearned. To the extent that they partake of the nature of a free gift on the employer's part, they may even evoke a certain grateful response toward him.

TRADE UNIONS' ATTITUDE

From the point of view of wage-earners as a self-conscious group, the situation is almost reversed. A pension system instituted and operated by the employer alone is apt to be regarded with misgivings by workers' organizations. They

are wont to stress the motive of economic self-interest on both sides and to minimize the possibility of disinterested benevolence on the side of the employer. The latter's real motive is seen in the light of a desire to foster loyalty or stability in his working force or to gain greater freedom in retiring superannuated employees. Whatever it be, it is apt to be viewed as incompatible with the essential interest of the workers in their freedom of combined action as a trade union. Any species of preferential treatment by welfare work conducted as a gratuity by the employer is objected to for its effect in placing the worker under obligation. In so far as it binds the worker to his job or to his particular employer, it tends to loosen his attachment to his own group—his union—thereby impairing its militant power. Especially is this true of a pension system, whose very aim and intent is to immobilize the working force, i. e., to induce employees as individuals to stick to their jobs for the term of their working lives.

The trade union aims at commanding the undivided loyalty of the workers to itself—not for its own sake, but for the sake of controlling the labor supply in the trade. It is in such control over the supply that its bargaining as well as fighting strength lies. The employer would compete with the union for the loyalty of his employees. His purpose is to keep his force intact against the lure of better terms offered by his competitors, no less than against the rival efforts of the union to subordinate the special interests of individual members to the interests of the group as a whole. To the extent that a pension scheme will enable the employer to attach his working force permanently to himself, it renders him independent of the uncertainties of the labor market, on the one hand, and of union domination, on the other. This is the crux of the conflict so far as union policy is concerned.

Wages vs. Welfare

There is, however, another consideration that contributes to the opposition of labor organizations to pension systems. Trade unions are primarily agencies for wage bargaining. They seek to secure as large a share as possible of the prod-

uct of industry in the form of wages for their members. If there be any surplus available for distribution among the workers, they prefer, as a rule, to have it applied to a wage increase by which all the employees gain on some equitable basis. To divert such surplus to pensions, even where assurance of eventual payment exists, they believe to be subject to two objections. First, it is paternalistic, and secondly, it favors the older and the more docile workers at the expense of the younger, few of whom are likely to enjoy the benefits.

The main ground of opposition on the part of organized labor to employers' pension plans is not to pension plans as such. It is directed rather to those types of pension plan which depend upon and, in turn, foster a paternalistic relationship. American labor takes the position that paternalism undermines self-reliance and ultimately even self-respect in the worker. A pension that can be granted or withheld at the discretion of the employer without any corresponding rights on the side of the employee is considered demoralizing, since it makes for favoritism and subserviency. It tends to deter the worker not only from going on strike with his fellows for what he may regard as a just demand, but even from asserting his demand as an individual with any degree of independence. The additional power for combatting unionization, which a discretionary pension plan places in the employer's hands, is suggested by the following provision, representative of many others of similar tenor:

"Employees who leave the service of their own volition or under stress of influence inimical to the company or when their services are required by the company, or who are for misconduct discharged by the company, thereby lose all benefits of the pension system."

Automatic Pension Favored

But a type of pension that does not depend upon the employer's favor and that accrues on a strictly objective basis collectively agreed upon, does not meet with the same objection from organized labor. The prospect of such a pension cannot be used as a disciplinary club to enforce the employer's will in respect to matters not included in the bond.

It may operate in certain cases to induce long and continuous service. But it is useless as a device for stimulating loyalty or otherwise limiting employees in their economic freedom of action. Such a pension plan is of a contractual character. It rests on a recognition of mutual advantage, and its benefits accrue more or less automatically upon the fulfillment of the terms mutually subscribed to.

An industrial pension plan, to command the active support of organized labor as distinguished from its merely passive acceptance, is expected to be the product of consultation or conference and to provide a measure of joint administration of the rules and by-laws. This requirement virtually implies the contributory character of the plan, for it is on the basis of their financial participation in the fund that the workers' claim to be represented in its management ultimately rests. Their vested interest in the fund also entitles the workers, through their organization, to help shape the policy and the method of its operation. They are thus in a position to prevent its becoming an instrument of economic strategy for the employer in the event of any industrial dispute. The policy of the union, furthermore, would make for standardization of the system, i. e., it would aim at its uniform application to all plants and workers in the trade over which it exercised jurisdiction. To this extent it would deprive the individual employer of that advantage in the labor market which otherwise he might enjoy over his less progressive competitors.

The large majority of pension plans at present in operation are of the non-contributory, non-contractual type. With the exception of the railroads, moreover, they are found in industries with little or no effective labor organization. That the attitude of the railwaymen's unions is not one of enthusiasm for existing pension schemes is hardly surprising in view of the character of these schemes. They are practically all of the discretionary type and do not allow for the participation of employees, much less of the unions, in their management. Besides, they have occasionally been utilized by the companies as weapons to combat strikes and have thus fallen into disrepute. This has been the result, in part, of a definition of continuous service so framed that in going

out on strike, even for a day, an employee on his return to work has forfeited all his accumulated service credit.

The ultimate conflict of viewpoint between employer and employee on this issue may be summed up in the phrase: *old age pensions versus service pensions*. The individual employee who enters into a pension scheme of any sort is most concerned with the concrete benefits it promises for the need of his old age. He is disposed to accept a proprietary scheme at least as readily as a contributory one, other things being equal. He may agree to contribute in consideration of larger benefits, if he has a lively sense of the future or of thrift. But unless advanced in years, he is rarely inclined to submit to onerous conditions in the present for the sake of such remote benefits. Conditions are imposed by the employer, or whoever else operates the pension scheme. The employer is interested in various benefits to the business, discussed in Chapter II, which he hopes to realize indirectly by means of a pension plan. For him that is a means which for the employee is the end. And what is end and aim for the employer is often opposed to the conceived interests of the employee, individually or collectively.

Union-controlled Pension Plan

In the absence of legislative provision for old age pensions, and in view of the undesirability from the worker's standpoint of tying them up with the interests of the employer as such, several workers' organizations have launched pension schemes of their own. Just as a great many national and local trade unions have organized relief and other benefit features as part of their activities, so a few of them have established superannuation benefits. These are designed for those of their members who attain a certain age and have to their credit a certain minimum period of paid-up membership in the organization. The only further condition of receiving the allowance, under one of these plans, is that the member shall be unable to sustain himself by work at his trade. The plan is contractual, inasmuch as every dues-paying member of the union is entitled, in accordance with its constitution, to equal participation in the benefits when the stipulated requirements are met. It is contributory in a

special sense, namely, that the pension fund is financed out of the per capita tax paid into the national union treasury by all the subordinate local unions. The contribution in this case amounts to one-half of one per cent of wages and the benefit to a flat sum per week, which may be supplemented on the part of large and prosperous city branches by an additional benefit out of dues.

The chief advantage to the employee of such a union-controlled pension plan is its freedom from ulterior aims that might conflict with his own as a member of organized labor. It leaves him free to change his residence and his employer whenever he chooses to do so and, generally, to exercise his rights as a citizen in industry without fear of material loss to himself. It confers benefits as a matter of right, not of favor, and guarantees those benefits with the whole power and prestige of the organization. From the organization point of view, moreover, the operation of a pension system on these lines is an asset both in recruiting and in retaining members. The requirement of twenty-five years of continuous membership as a condition of eligibility tends to strengthen the ties that bind the individual to the organization and to keep himself in good standing. In this respect, the union-controlled pension system resembles the system controlled by the employer. In both cases, it ministers not merely to the personal welfare of the employee as an individual, but also serves the more general interests of the organization which conducts it.

CHAPTER VI

CONDITIONS OF ELIGIBILITY

Pensions have been defined as "awards to employees upon retirement from active service in recognition of the length of service and the character of the individual's contribution to the success of the business." When it is attempted to reduce this general proposition to concrete terms in practice, a number of points immediately call for specification. In particular, two main questions suggest themselves: Who shall be entitled to a pension or, in other words, what constitutes eligibility? And what shall be the amount of the benefit to be paid in any given case? These are vital questions of administration in so far as formal pension plans are concerned. Under an informal program, administrative questions do not arise. Questions of who and when and how must rest entirely with the employer and hinge on his judgment of individual merit, so that the formulation of general conditions and rules is not called for. Allowances are granted in amounts and for periods supposedly suited to the individual's needs and deserts and at such time as no other course is open for dealing humanely with his incapacity. If rules and standards are adopted at all under such an arrangement, they serve only as convenient guides, not as mandatory regulations.

As soon as a formal pension program is launched by an employer, the conditions are laid down and defined under which employees may apply for retirement benefits. Chief among these conditions are those of age and length of service. They are, as a rule, complementary conditions, a certain number of years of continuous employment with the concern being essential for eligibility in conjunction with a certain minimum age.

AGE

Employers, naturally, are not eager to retire employees who are physically and mentally still capable of carrying on.

The value of such employees to the company is often greater than that of younger men of less experience and familiarity with the job.

Age Minimum

A minimum age limit is commonly set up as a qualifying condition. This varies under different plans from fifty-five and, in exceptional cases, from fifty years upward to seventy years. In a number of plans, women are favored with a differential of five or ten years in age limits, so that where men become eligible for pension consideration, say, at sixty, women of similar service attainments may be considered at fifty-five or even at fifty.

Since age in terms of years is merely a rough indicator of vitality and productive capacity in the individual, there is a disposition in many cases to give a certain elasticity to age limits or to omit them altogether. In some plans the minimum age is left undefined, the time of retirement being optional with the management. Retirement with pension in these cases is contingent upon the completion by the employee of a certain minimum term of continuous service, or his being prematurely incapacitated in the course of employment. The latter eventually presents a situation that in a number of plans is met by a regular disability pension, which will be separately considered in this chapter. In other plans it is dealt with merely as a special case completely within the discretion of the pension board. An instance of this borderline type of case may be cited from the experience of a certain railroad whose pension rules set the retirement age at seventy but allow for "special cases" without specifically providing a separate category of disability pensions. The company writes in this connection as follows:

"Under our plan the granting of pensions is entirely at the discretion of the Board of Directors, and they have tried to establish seventy years as the minimum age at which pensions are granted.

"On account of the exacting service of some of our employees we have retired a number for physical disability, and consequently our average age of pensioning is considerably lower than seventy years."

Graded Retirement Age

Added flexibility in the age minimum is gained in a number of plans by establishing a relatively low minimum at which retirement may be effected at the discretion of the management. At a somewhat more advanced age, the employee himself may request retirement on pension, which then must be considered but still remains within the discretion of the board to grant or deny. Finally, a maximum limit is set, which is the compulsory retirement age and which may be extended in exceptional cases by special action of the management. This procedure may be illustrated by the scheme of a certain manufacturing concern which recognizes the following three classes of employees as eligible for pension upon retirement:

"(a) Those in the employ of the Company who are seventy years of age or more and have been in the employ of the Company continuously for at least twenty-five years. These employees *must retire* from the service of the Company unless excepted by the Board of Directors.

"(b) Those in the employ of the Company who are not less than sixty-five nor more than seventy years of age . . . *may retire* from the service of the Company if they and the Board of Directors so elect.

"(c) Those in the employ of the Company who are not less than fifty-five nor more than sixty-five years of age . . . *may be retired* from the service of the Company if the Board of Directors so elect."

Compulsory Retirement

The object of a maximum age limit at which retirement becomes obligatory is, first of all, to give effect to that purpose of a pension system which aims at the timely elimination of superannuated employees. Occasionally, it may be made to serve as a limitation upon the employer's obligation to pay pensions in the case of employees who reach the retirement age without completing the prescribed period of service. But such is not the intent of the restriction and instances of the contrary practice might easily be adduced, where service requirements are completely waived in favor of employees reaching the maximum age. Such an instance

is the following, from the plan of a large manufacturing concern:

"Retirement of employees, rendering them eligible for Service Annuities, shall be in accordance with the following plan:

"(a) Any male employee when he shall have reached the age of seventy years, and any female employee when she shall have reached the age of sixty-five years, shall be required to retire, irrespective of length of service."

By no means do all pension plans provide a compulsory retirement age, leaving it to be decided instead by the administrative committee in each case. But where it is formally laid down, the point is usually fixed at age seventy or sixty-five, while in a very few cases retirement is compulsory as early as sixty years. Occasionally, an exemption is stipulated in favor of executive officers or other individuals of importance to the organization. These may continue in service beyond the standard maximum age with the consent or at the request of the directors. In other cases, a distinction is made between certain classes of employees as regards the application of the retirement limit. For example, a middle western manufacturing concern has established two classes for the purpose, one comprising only officers and salaried employees, the other covering factory employees who are paid on an hourly or daily basis or by piece work. For the former group, retirement is optional under this plan at sixty and compulsory at sixty-five, for the latter, these ages are, respectively, sixty-five and seventy.

A compulsory retirement age, even if set as high as seventy years, may in individual cases work injustice or unnecessary hardship upon the employee or may be inexpedient for the employer. This is obviously so where the strict enforcement of the rule would cut off the employee, still able-bodied, from a pension for which his service period is not quite sufficient to render him eligible. To modify the rigor of the rule in practice, some plans admit of special consideration and exceptions even at this point. Thus, the pension regulations of several railroad companies provide as follows:

"All employees who have reached the age of seventy, shall be retired, except when upon the application of such an employee and in the judgment of the Board, after such examination as it

deems necessary, the requirement of the service does not demand retirement."

The following group of tables serves to give a picture of the range of retirement ages as laid down in the various plans:

TABLE 10: RETIREMENT AGES FIXED FOR ELIGIBILITY

1. Compulsory Retirement Age			2. Retirement at Company's Discretion		
Men	Women	Number	Men	Women	Number
70	70	47	70	70	9
70	65	8	70	60	2
70	60	20	65	65	7
65	65	13	65	60	3
65	60	6	65	55	4
65	55	21	65-70	55-60	1
60	60	1	60-70	60-70	1
70	..	2	60	60	13
	Total	118	60	55	5
			60	50	5
			55	55	6
			55	50	5
			Any age	..	10
			Total		71

3. Retirement at Employee's Request			4. Retirement at Company's Discretion or Employee's Request		
Men	Women	Number	Men	Women	Number
70	70	3	70	70	1
65	65	16	70	65	1
65	60	8	65	65	13
65	55	3	65	60	8
60-65	55-60	1	65	55	15
65	..	1	65	50	3
60	60	6	60	60	9
60	55	5	60	55	9
60	50	3	60	50	18
60	..	3	60	..	9
55	55	2	55	50	10
55	50	3	Any age	..	4
Any age	..	5	Total		100
	Total	59			

Maximum Hiring Age

Closely bearing upon the retirement age in its effect upon the accrual of pensions to employees is the application of a maximum hiring age. Nearly one-half of all the plans studied expressly fix an age limit for persons entering into the employ of a concern for the first time. Such an age limit serves several uses, one of which is to permit of a sufficient period of service before superannuation. Another is that of relieving

the pension fund of extraordinary demands upon it. By enforcing a relatively low hiring age an employer is able to keep down to a certain extent the average age level of his active force and, consequently, the number of applicants for retirement pensions in any given year. If his labor turnover is high, this will greatly reenforce the effect of the hiring policy upon the proportion of eligibles. If turnover is low, the effect of the policy will still be to retard the rate of eligibility.

Where a maximum hiring age is in force, the age limit observed with by far the greatest frequency is forty-five years. Fifty years is not uncommon, while thirty-five and forty occur less often. As shown in Table 11, the frequency curve trails off in one direction with a scattering of cases up to sixty-four years, and down to thirty years in the other. These age limits apply primarily to male employees. In a certain proportion of cases, the corresponding limits for women are ten years lower than for men, though in a majority of plans no distinction of this kind is made. A further distinction as regards hiring age is frequently observed as between experienced and inexperienced help. For the latter group, the prevailing maximum is thirty-five years, while for the former, it extends in these cases to the age of forty-five. Exceptions are frequently provided for beyond this point in the case of technical positions for which unusual qualifications are demanded. This applies particularly to railroad employees. In the case of persons whose employment is merely temporary and who, therefore, do not come into consideration for pensions, the age limits may also be suspended. The following provision from the pension plan of a middle western railroad is typical of many:

"No person over thirty-five years of age shall hereafter be taken into the service of the company, provided, however, that in the discretion of the President persons may be temporarily taken into the service, irrespective of age, for a period not exceeding six months, . . . provided, also, that with the approval of the Board of Directors, persons may be employed indefinitely, irrespective of the age limit, where the service to be rendered requires professional or other special qualifications."

The practical significance of the maximum hiring age in

any given scheme is evident only in its relation to age and service requirements.

TABLE 11: MAXIMUM HIRING AGE

Male		Female	
30 years.....	1	30 years.....	3
35 years.....	5	35 years.....	12
35 to 45 years.....	1	35 to 45 years.....	1
40 years.....	12	40 years.....	12
40 to 45 years.....	1	40 to 45 years.....	1
44 years.....	1	44 years.....	1
45 years.....	37	45 years.....	24
45 years (experienced); 35 years (inexperienced).....	15	45 years (experienced); 35 years (inexperienced).....	14
45 to 50 years.....	1	45 to 50 years.....	1
50 years.....	17	50 years.....	11
50 years (experienced); 40 years (inexperienced).....	1	55 years.....	1
55 years.....	1	60 years.....	1
60 years.....	1	64 years.....	1
64 years.....	1		

SERVICE RECORD

The second and most important factor determining eligibility for pension is the service record of the employee, usually stated in terms of years of continuous connection with the company. Length of service is the practical measure of an employee's "contribution to the success of the business." And this is all the more true where emphasis is laid upon continuity, since that carries with it at least a presumption of loyalty and other desirable attributes on the employee's part. The presumption becomes an expressed condition in a case like the following. In defining three classes who may be pensioned, a southern traction company names first:

"All employees who have attained the age of seventy years and who have been twenty-five years or more continuously in the service, and who shall not have at any time abandoned such service or have refused to perform such service."

Continuity of Service

Continuity of service is insisted upon in nearly all plans which specify a minimum service period as a condition of retirement. But continuity is variously interpreted, some plans requiring a literal application of the rule, while the majority make allowance for diverse types of interruption

of employment. The most common exception to the rule of strict continuity is that in favor of absence caused by illness or other unavoidable emergencies. Such temporary absences, to be credited to the employee, must either be sanctioned in advance or promptly reported by him to the management, so that his record may be clear. Interruption in service due to a lay-off incidental to a shut-down or reduction in the working force is not usually counted as a break in the service. Leave of absence for any cause, even though involving removal of the employee from the payroll for the time being, does not, as a rule, constitute a break in "continuous service." However, when it exceeds a certain period, ordinarily six months or a year but sometimes as little as thirty days, it may be deducted from the total length of service which the employee has to his credit. This rule is in some cases extended to cover employees discharged, provided they are reinstated within a limited period. But voluntary withdrawal from the service, whether by resignation, by absence without notice, or by strike, is equivalent to a definite break in continuity. It cancels all service credit theretofore accumulated, and if such employee is subsequently reinstated, his status with respect to retirement benefits will be that of a new employee, i. e., his service time will be computed from the date of re-employment. This policy is exemplified in the plan of an employer in the food industry, as follows:

"Employees who leave the service of their own volition or under stress of influence inimical to the company, or when their services are required by the company, or who are for misconduct discharged by the company, thereby lose all benefits of the pension system."

It might seem that a strict construction of the rule of continuity, if consistently applied, would result in barring a considerable proportion of applicants who otherwise might qualify for a pension. In its practical working, however, the deduction of service credit for the most part has the effect of postponing and perhaps curtailing the award to some extent, rather than of complete forfeiture of benefits. The latter result ensues only where a break in continuity occurs after years of service have been rendered, leaving the

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Chief Surgeon

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remainder of the individual's working life insufficient to make up the requisite minimum period. In these cases, to be sure, the loss to the employee may be little short of calamitous. The following tabulation indicates something of the latitude with which the continuity requirement is construed under different plans:

TABLE 12: INTERPRETATION OF CONTINUOUS SERVICE

1. A break in continuity is caused by:	
Resignation or voluntarily leaving employment.....	1
Stopping work without permission.....	1
Absence without written notice to Pension Committee.....	1
Any absence without pay except leave of absence.....	1
Interruption of contributions for one year.....	1
2. Continuity is not broken by:	
Absence on leave or with consent of company.....	86
Absence on war service.....	2
Absence on account of shut-down or accident.....	1
Absence on account of illness.....	2
Absence on account of illness, if contributions maintained.....	1
Absence on account of illness, if not exceeding one year.....	2
Absence with consent of company, if not over one year.....	22
Absence with consent of company, if not over six months or less.....	4
Temporary absence.....	7
Absence of less than three or two years.....	2
Absence of less than one year.....	3
Absence of six months or less.....	2
Absence on account of layoff.....	5
Absence on account of layoff not exceeding three months.....	1
Dismissal followed by reinstatement within two years.....	4
Dismissal followed by reinstatement within one year.....	1
Discharge or resignation, reinstatement within six months.....	1
3. Time of absence deducted in case of:	
Absence with consent of company.....	11
Absence with consent of company (discretionary).....	3
Absence with consent of company in excess of thirty days.....	2
Absence with consent of company in excess of three months.....	2
Absence with consent of company in excess of six months.....	31
Absence with consent of company in excess of one year.....	7
Temporary absence in excess of one year.....	1
Temporary absence in excess of six months.....	6
Ill health in excess of six months.....	1
Reduction of force (layoff) over one year.....	1
Reduction of force (layoff) over six months.....	2
Reduction of force (layoff) over three months.....	2
Discharge or resignation, and reinstatement.....	1
Dismissal followed by reinstatement.....	3
4. Definitions:	
"Continuous service".....	27
Consecutive years of employment.....	4
Continuous for last ten years of employment.....	3
Accumulated service.....	3
Continuous or aggregate period of contribution to fund.....	7
No definition.....	27
Not specified.....	26
Not reported.....	15

Under many plans of the contributory type the principle of continuity is understood somewhat more liberally. Membership in the fund and the measure of the employee's contribution to it determine his status. Interruption in his contributions usually reduces to that extent his claims to retirement benefits, but does not cancel them unless the interruption is long continued. Separation from the service as a rule carries with it a withdrawal benefit, at least equivalent to his own contributions and sometimes including also the employer's contributions up to that point. This is more especially the case under certain contractual plans, whether contributory or not, where vested interests once acquired cannot be voided later. Thus, what is known as a deferred annuity, being earned year by year, frequently accrues independently of subsequent discontinuation of service.

Length of Service

Under these plans of the contractual type, therefore, total length of service, no less than continuity of employment, is immaterial as a criterion of eligibility for retirement. In nearly all other cases, however, the service period is an essential factor in the equation. The exact number of years stipulated as a minimum service period is fairly arbitrary and varies considerably under different plans and conditions. The most numerous group of pension plans, comprising 45 per cent of the total, fix the minimum at twenty years, while 23 per cent more place it at twenty-five years. Fully 95 per cent of all plans coming into consideration require continuous service periods ranging from fifteen to thirty years as a condition of eligibility for pensions. The distribution of the remaining 5 per cent extends from five years at one extreme up to forty-five at the other. The last case is in reality a maximum rather than a minimum service period. It is exemplified by the plan of an eastern railroad company which, in addition to its minimum requirement of twenty years' service at the age of sixty-five, provides for retirement after forty-five years' service without regard to age. Table 13 shows the actual service requirements as found in the plans specifying such a condition of eligibility.

TABLE 13: LENGTH OF SERVICE REQUIRED FOR ELIGIBILITY

1. Compulsory Retirement			2. Retirement at Company's Discretion		
Men	Women	Number	Men	Women	Number
35	34	1	30	30	9
30	30	1	25	25	21
25	25	12	20	20	25
25	20	2	15	15	11
20	20	44	10	10	2
15	15	3	Not specified	..	3
12	12	1			
10	10	1			
Not specified	..	53		Total	71
	Total	118			

3. Retirement at Employee's Request			4. Retirement at Discretion of Company or at Employee's Request		
Men	Women	Number	Men	Women	Number
30	30	17	30	30	17
30	25	1	30	25	2
25	25	13	25	25	13
25	20	1	25	20	3
20	20	22	20	20	49
15	15	6	15	15	10
10	..	1	12	12	1
Not specified	..	5	10	10	3
	Total	59	Not specified	..	2
				Total	100

In the great majority of plans, the two main qualifications for service pensions, namely, age and length of service, appear in conjunction. Neither condition without the presence of the other is sufficient to constitute eligibility. Thus, if retirement is made compulsory at seventy with a minimum service period of thirty years, an employee hired after the age of forty cannot meet these requirements and would therefore be ineligible to pension benefits under the rules. A plan presenting this combination of requirements is frequently found to fix a maximum hiring age at thirty-five or forty, thereby making it theoretically possible for any employee to qualify for a pension in due time. An example of what is likely to happen where no such protection is provided, is reported by a manufacturing concern whose minimum service requirement is twenty years, as follows:

"A pension plan brings out the fact that employees should be hired at such an age as to provide for twenty years of service. We now have some men, who, by reason of age, have passed their

days of usefulness, but wish to stay in the hope of lasting twenty years, which is the minimum term of service, unless completely disabled after fifteen years."

Short of such complete disability and short of twenty years' service, these employees have no claim to benefits under such a plan. To bridge this gap, a number of plans extend the scope of executive discretion as to service requirements.

An instance has already been cited of service requirements being waived in consideration of the age of the employee. They may be waived in special cases on any ground which the management may deem sufficient to warrant retirement. An example of such extension of discretionary powers is furnished by the following rule from the plan of an interurban railroad company:

"The Board of Directors reserves the power, in its discretion, upon its own motion or upon recommendation of the Trustees, to retire any employee under circumstances considered justifiable by it, without regard to his or her length of service, and upon such annuity as the Board of Directors may deem to be in general accord with the provisions and intent of this plan."

The plan in question is non-contributory and fixes a minimum service requirement of ten years, with a secondary minimum of twenty years as a condition of retirement at the request of the employee (male) at the age of sixty. The provision quoted above, therefore, is merely supplementary to the normal or regular procedure, and in this case takes the place of a special category of Disability Benefits.

DISABILITY

Incapacity or disability is one of the contingencies of industrial employment which, like old age, deprive the employee of his accustomed source of livelihood. In part, but only in part, this contingency is provided against by insurance under the workmen's compensation laws of various states. These are designed primarily to cover those cases of industrial accidents and occupational disease which ensue directly from and in the course of employment. They do not, generally, insure the employee against various injurious

influences of his employment whose effect upon his health may be delayed and obscure, nor do they in any case compensate him for loss of his earning power from illness, accident, or other causes lying outside of his employment. It is in a sense to supplement or to supply the place of legislation in this field that a majority of pension plans include, as a subordinate part of the general scheme, provision for disability benefits. Some of these afford benefits only to persons incapacitated in the course of employment, others only to those disabled from non-occupational causes, while still others admit all causes and merely consider effects. A few plans specify an age minimum, but the great majority do not and merely stipulate a service minimum, whereas in a limited number of plans neither requirement is stated and the determination of eligibility is left entirely to the discretion of the pension board or the directors. Most disability provisions apply to employees who are permanently and totally incapacitated, although in a few cases partial disability is recognized and provided for on a somewhat less liberal basis. Since the permanence of an employee's incapacity for work cannot always be foreseen, the continuance of benefit payments to such employees is in most cases determined by the duration of the conditions and ceases with recovery. Medical examination and certification is required in such cases.

TABLE 14: CONDITIONS FOR DISABILITY BENEFITS

<i>A. Character of Disability where specified</i>	
Permanent.....	6
Temporary.....	2
Total.....	9
Partial.....	2
Suffered while at work.....	11
Not in course of employment.....	4
From any cause.....	1
	35
<i>B. Other Conditions</i>	
Salary maximum.....	2
Membership in relief association, etc.....	5
Contributions to fund.....	5
Every case at discretion of company.....	38
	50

In contrast to the policy with respect to superannuation benefits, the age of the employee is a relatively rare condition

for eligibility as regards disability benefits. Where an age qualification is specified, it is usually from five to fifteen years below the compulsory retirement age. It then tends roughly to approximate the minimum age for discretionary retirement, and, in general, disability awards are to a large extent discretionary. Considered from the standpoint of the employee, his age at the time he is incapacitated for work has very little significance, if the incapacitation is likely to be permanent. From the employer's standpoint, on the other hand, the cost of a pension for life to an employee disabled at forty is a very different matter from one at sixty.

TABLE 15: AGE REQUIREMENTS FOR ELIGIBILITY

M=Males; F=Females	
70 (M), 60 (F).....	1
61 to 70.....	4
60 to 70.....	1
65 to 69.....	5
65-69 (M), 55-59 (F).....	1
60-69.....	5
65.....	4
Under 65.....	1
61 to 65.....	1
61.....	1
Under 61.....	1
60.....	5
60 (M), 55 (F).....	1
60 (M), 50 (F).....	1
Under 60.....	3
55.....	2
55 (M), 50 (F).....	1
Over 50.....	1
50.....	2
	41

TABLE 16: LENGTH OF SERVICE REQUIRED FOR ELIGIBILITY

30 years.....	5
25 years.....	23
25 (M), 20 (F).....	5
Under 25.....	1
20.....	50
15.....	52
14.....	1
10.....	32
5.....	1
3.....	1
None specified.....	41
No disability features.....	27
Not reported.....	16

255*

* Several plans having more than one service minimum have been counted twice.

While in the great majority of pension plans with disability features there is no age specification at all, most of them do stipulate a minimum service period. As is evident from Table 16, the period varies from thirty years down to three, and the requirement for female employees is sometimes below that for males. In a number of plans, moreover, the service period is altogether unspecified and left to the discretion of management in each particular case. A large proportion of plans consider the treatment of all disability cases as "special" cases, entirely within the judgment of the directors of the company, usually supported by medical evidence. The service requirement has, on the whole, the same function in this connection as it has in relation to old age retirement. Prolonged service, whether or not resulting from the expectation of a pension, is of value to the business and appreciated by the employer. If his appreciation takes the constructive form of a pension in the one case, it may logically do so in the other as well. For whether incapacity ensues from old age or from some premature injury to health, the same gain from long and loyal service has been realized during the years of physical fitness, and the same type of reward is appropriate. From the employer's standpoint, it is true, the disability feature is of less economic utility than the superannuation feature, since it frequently comes into operation before retirement would normally have been needful or advantageous. That, however, is not a defect in the disability benefit but rather in the conditions that make such a benefit necessary, and doubtless the greater loss is in any case borne by the incapacitated employee. For him the benefit is merely the precipitation of the expected pension award in consideration of unexpected circumstances.

OTHER CONDITIONS

In addition to age and service qualifications, pensions in general, and not merely disability pensions, are frequently subject to certain other limitations. Under some plans, eligibility is confined to certain classes of employees, such as members of the factory force or operative departments of the corporation, while other plans exclude these and include

only salaried employees and officers of the corporation, or executive officers alone. Some plans fix a salary maximum for eligibility, ranging from \$1,500 to \$3,600, while one sets a minimum of \$10 per week. Still others bar from participation employees under eighteen or those past forty or forty-five at entrance. Others, again, exclude women, married women, salesmen on commission, part-time employees, those having less than a minimum period of service, or those who are not members of the company's relief department or mutual benefit association. Contributory plans naturally include only such employees as regularly contribute to the fund. The various classes included and excluded from benefits under the various plans are:

TABLE 17: CLASSES OF EMPLOYEES ELIGIBLE	
All employees.....	181
Certain classes only.....	40
Within certain age limits.....	6
Male employees.....	2
Salaried employees.....	6
Operatives (plant employees).....	3
After certain period of service.....	2
Under certain salary.....	4
Under certain grade and salary.....	1
Full-time employees.....	1
Permanent employees so designated.....	1
Members of M. B. A. or relief department.....	13
Executive officers.....	1
Certain classes excluded.....	12
Executive officers.....	5
Executive officers and directors.....	2
Officers, salesmen and office managers.....	2
Salesmen on commission.....	2
Part-time and married female employees.....	1
Not reported.....	15
Total.....	248

Some of these restrictions are merely expedients aimed at the reduction of cost, while others are dictated by broader policy. For example, the restriction based upon a salary maximum proceeds from the assumption that employees and officers receiving more than the specified salary will be able to provide for their old age out of their own current incomes and need not burden the company pension fund. This may then be administered entirely for the benefit of those employees who are presumed to be most in need of pensions

on retirement. The operation of a pension scheme exclusively for the executives, on the other hand, has no such social justification. The requirement that to participate in retirement and especially in disability benefits an employee must be a member of the relief association, is frequently grounded in the fact that the pension system in force is part of a larger program of benefits administered by the relief association. It implies a harking back to a conception of pensions as a form of relief, even though systematized relief.

CHAPTER VII

AMOUNT OF PENSION ALLOWANCE

From a survey of the benefit features in the various plans it appears that there is no single principle governing the absolute size of pension payments in all cases. As the nature and purpose of pensions are conceived in different ways, so is the question of what is a normal or adequate amount. And within any given scheme, the actual amounts awarded to different individuals differ widely.

MINIMUM AND MAXIMUM LIMITS

The contrast between minimum and maximum payments, where such limits are specifically fixed, is very large even within a particular plan; taking it for the entire group, it is striking. A minimum of sixty dollars per year, at one extreme, stands over against a maximum, at the other, of ten thousand dollars. Comparing minima among themselves, there are still wide variations. They range from \$60 under the plan of a certain railroad company, to \$600 in the case of an insurance company. Similarly as regards maxima, they cover the remainder of the scale, ranging from \$600 to \$10,000 per year—amounts awarded, respectively, by another railroad and by a financial institution. The amounts and their numerical distribution are set forth in Table 18.

It is obvious from these figures, not ignoring the fact that they represent the extremes of variation, that the size of the pension is not to be explained by reference to a single criterion. The "subsistence minimum," on the one hand, and "the individual's contribution to the success of the business," on the other, doubtless bear in some manner upon the size of pension allowances. But they do so indirectly and remotely, and only in so far as they are reflected in the individual's wage rate and length of service. It is these latter that are in most instances the measure of the award.

TABLE 18: AMOUNTS OF PENSION BENEFITS

1. Maximum Limits		2. Minimum Limits	
Less than \$200 per year.....	1	\$60 per year.....	1
\$200 to \$400.....	6	61 to \$100.....	2
401 to 600.....	13	101 to 120.....	4
601 to 800.....	7	121 to 150.....	5
801 to 1,000.....	11	151 to 200.....	18
1,001 to 1,200.....	28	201 to 250.....	42
1,201 to 1,500.....	8	251 to 300.....	37
1,501 to 2,000.....	13	301 to 400.....	29
2,001 to 3,000.....	16	401 to 500.....	9
3,001 to 4,000.....	4	501 to 800.....	4
4,001 to 5,000.....	18	1200.....	1
5,001 to 6,000.....	9	15% of salary.....	1
10,000.....	2	20% of salary.....	1
1,500 salary as basis.....	1	33⅓% of salary.....	1
4,000 salary as basis.....	5	40% of salary.....	1
5,000 to 6,000 salary as basis..	3		
20,000 salary as basis.....	1		
40% of salary.....	2		
50% of salary.....	20		
60% of salary.....	5		
66⅔% of salary.....	4		
70% of salary.....	7		
75% of salary.....	19		
80% of salary.....	1		
90% of salary.....	1		

LENGTH OF SERVICE

Length of service, as we have seen, operates as a factor in eligibility. In another aspect it serves as a basis for computing the amount of the pension. It does so, as a rule, in conjunction with the salary or wage earned by the employee. A stated percentage, usually fixed somewhere between one and two and one-half per cent of final or average annual salary over a period of years, is multiplied by the number of years the employee has given to the service of the company. The sum thus obtained is, under the typical procedure, the amount of the yearly allowance to the individual in question. The range and frequency of basic percentages thus used are:

TABLE 19: FIXED BASIC PERCENTAGE OF SALARY MULTIPLIED BY YEARS OF SERVICE

1 per cent.....	84
1 to 2 per cent.....	1
1¼ per cent.....	4
1.43 per cent.....	1
1½ per cent.....	28
1½ to 2 per cent.....	3
1⅝ per cent.....	1
1⅔ per cent.....	2
1¾ per cent.....	1
2 per cent.....	52
2½ per cent.....	1

Different plans specify different periods of years for which average salary is to be computed. The most common formula calls for the last ten years preceding retirement, though five, three, and fifteen years are also found with more or less frequency. In a few cases, the five- or ten-year period of highest salary rate is used as a basis; in still other cases—and this is the least arbitrary rule—the entire period of service is so used.

TABLE 20: PERIOD OF YEARS OF SERVICE DURING WHICH
SALARY IS TAKEN AS BASIS

2 years.....	1
3 years.....	9
5 years.....	41
10 years.....	126
15 years.....	1

RATE OF SALARY

The percentage of average salary specified is most frequently a flat percentage, e. g., $1\frac{1}{2}$ per cent, whatever the length of service. In a number of schemes, however, this percentage is graduated according to the service period, or according to the salary grade, usually in such a manner as to place a premium upon the longer period and the higher grades. An example of the grading of the percentage according to salary is found in the plan of a public utility corporation which provides for a basis of $1\frac{1}{2}$ per cent of average salary up to \$1,200, and in the case of all employees whose salaries exceed that amount, an additional 1 per cent of the excess. Other combinations of this type are as follows:

TABLE 21: SCALE OF BASIC PERCENTAGES ACCORDING TO
GRADE OF SALARY

$1\frac{1}{4}$ per cent of \$600 salary, plus $\frac{3}{4}$ per cent of excess over this amount
$1\frac{1}{2}$ per cent of \$600 salary, plus 1 per cent of excess over this amount
$1\frac{1}{2}$ per cent of \$1,200 salary, plus 1 per cent of excess over this amount
2 per cent of \$2,400 salary, plus $1\frac{1}{2}$ per cent of excess over this amount
2 per cent of \$2,400 salary, and $1\frac{1}{2}$ per cent of next \$3,600, and 1 per cent of next \$6,000, and $\frac{3}{4}$ per cent of next \$12,000, and $\frac{1}{2}$ per cent of all over \$24,000
2 per cent of salary under \$2,100, and $1\frac{1}{2}$ per cent of salary over \$3,000
3 per cent of salary up to \$20 per week, and 2 per cent of salary over \$20

The other principle of grading, i. e., according to length of service, is illustrated by the plan of a middle western public

utility company which awards to an employee of less than twenty years' service a pension equivalent to 1 per cent of average pay for the last ten years of service multiplied by his total number of years of service. For those employees whose service record is from twenty to twenty-five years, the corresponding percentage is $1\frac{1}{4}$; for twenty-five to thirty years' service it is $1\frac{1}{2}$; for thirty to thirty-five years it is $1\frac{3}{4}$; while a record of thirty-five years and over is rewarded at the rate of 2 per cent for each year of service. Table 22 presents the numerous variations upon this method of computation.

TABLE 22: SCALE OF PERCENTAGES OF SALARY ACCORDING TO PROGRESSIVE LENGTH OF SERVICE

1 per cent to $1\frac{1}{2}$ per cent ^a	1
1 per cent to 2 per cent ^a	1
1 per cent to 3 per cent ^a	1
1 per cent ^a up to 35 years; 50 per cent ^b beyond	1
1 per cent ^a plus 10 per cent ^b	3
1 per cent ^a plus \$10 per month	1
$1\frac{1}{2}$ per cent to $2\frac{1}{2}$ per cent ^a	1
2 per cent to $2\frac{1}{2}$ per cent ^a	1
10 per cent ^b plus 2 per cent ^a for service over 20 years	1
20 per cent ^b plus 1 to $2\frac{1}{2}$ per cent ^a for successive periods	1
20 to 30 per cent ^b plus 2 per cent ^a for service over 25 years	2
25 per cent ^b plus 1 per cent ^a for service over 20 years	1
25 to 50 per cent ^b	1

^a Multiplied by number of years of service.

^b Computed on annual salary.

The aggregate percentage of 70, which is attainable under the above scheme, is relatively high. Most plans limit it to one-half or two-thirds of average salary, though in exceptional instances the maximum is fixed as high as 80 and 90 per cent.

RATE AND PERIOD OF CONTRIBUTIONS

Under a system of paid-up or deferred annuities, whereby each year creates the resources to meet the accrued pension claims, a fixed length of service is not generally insisted upon as a condition for eligibility. But length of service does directly determine the amount of the pension. The same is true of most plans operating on an actuarial basis. A favorite rule is to fix the employee's contribution—and sometimes also the employer's—according to the age of the former at

entrance into the scheme. The interval between entrance and retirement age or the age at withdrawal, as the case may be, measures the total of accumulations to the credit of the employees and, consequently, the amount available for his pension. The employer's contributions are usually realized in the form of pension benefits only by those employees who remain in the service until retired. However, this does not necessarily involve a minimum period of service but only a minimum age.

The principle is illustrated by the scheme installed at the beginning of 1925 by a large financial institution employing two thousand persons. Under this scheme, each employee contributes upward of 5 per cent of his salary, according to age at entrance. When he reaches the age of sixty the company matches the total amount of his contributions plus accrued interest at 4 per cent, and pays him a pension annuity based upon the combined amount. Retirement being optional at sixty and mandatory at seventy, the actual length of service is subject to extension, and with it the size of pension payments. But pension payments increase faster than the period of service, owing to the character of actuarial tables. Conversely, at a given retirement age, say sixty-five, if contributions are at a constant percentage of salary, the rate of benefits decreases at an accelerated pace, the higher the age at entrance or the shorter the period of service.

AMOUNT OF BENEFIT FIXED

Although the large majority of pension allowances are computed on the joint basis of length of service and salary rate, this is not invariably the case. In determining the amount of the pension, a number of plans disregard the length of service and take into account only the earning power of the individual employee as indicated by his salary. (See Table 23.) Still others more or less arbitrarily fix a flat sum, or combine a flat sum payment with a percentage of salary. (See Table 24.) Where the amount is based merely on salary, it is usually expressed in a fixed proportion, e. g., 30 per cent or one-half or two-thirds of average salary earned by the employee during a period of months or years preceding

retirement. Where the amount is arbitrarily defined, it is the same for all employees under the plan and ranges from \$15 up to \$100 per month. In disregarding, in these cases, the individual's length of service, the presumption seems to be that, having once laid down a prolonged service period as a condition of eligibility, no incentive is needed for its further extension.

TABLE 23: PLANS BASED ON FIXED PERCENTAGE OF SALARY

24 per cent.	1
30 per cent.	2
50 per cent.	6
66 $\frac{2}{3}$ per cent.	1

TABLE 24: AMOUNT OF PENSION STATED

\$15 per month.	1
\$30 per month.	2
\$40 per month.	2
{ \$37.50 per month for employees } { \$50 per month for executives }	1
\$50 per month.	2
\$58 per month.	1
\$100 per month.	1
\$10 to \$60 per month according to salary.	1
\$12 to \$25 per month according to salary.	1
\$60 per month on salaries of \$175 to \$250.	1
\$1 per month for each year of service.	1
\$30 per month for service up to 25 years plus \$1 per year up to 45 years.	1
Determined by amount of employees' contributions or credit in fund.	5
Determined by amount of insurance policy.	4

The criterion of salary as a basis for computing pensions involves the conception of a graded standard of living. By making the pension a uniform flat sum this differentiation is ignored, except for the factor of individual savings, and a common standard is assumed. The grounds upon which such a policy is based are summarily set forth by one manufacturing concern which has adopted it, in the following language:

"Many pension plans are based on percentage of salary and length of service. We feel, however, that the needs of men and women who reach the pension age are not very different on account of varying incomes during the period of employment, and have decided on a flat sum, calculated to cover all reasonable requirements."

This concern pays pensions of \$50 per month to men who have reached the age of sixty-five (women, fifty-five) years and who have completed at least twenty years of continuous service.

ADEQUACY OF PENSION ALLOWANCE

In order to fulfill its purpose either for the employer or for the employee, a pension has to be of sufficient amount to be of material value to the employee as a source of support in his old age. Unless it is so valued, it will fail, among other things, to facilitate retirement. The flat rate is usually, though not always, set high enough to satisfy this minimum, because it is applicable to all alike and, therefore, presumably adjusted to the average requirement. Where benefits are computed upon salary and length of service and further limited by a maximum restriction, they are, in individual cases, likely to be inadequate. With a basic rate of but 1 per cent, this is virtually inevitable for the lower salary grades. A number of employers report their conviction that payments should be more liberal. At a conference¹ of industrial experts upon this question in 1923, there was manifested a very distinct sentiment in favor of an increase of the pension allowance to the greatest possible degree. Some of those present stated that they had found difficulty in inducing men to retire because of the inadequacy of the pension payments. The conclusion reached was to the effect that it would be desirable to increase the amount of pension payments, if it could be done within practicable limitations of cost.

The inadequacy of a pension may result from several causes which are only partly within the employer's control. In so far as payments are determined on a salary or length of service basis, or in accordance with contributions by the employee, the latter himself largely affects the resulting amount. But the percentage of salary used in the computation, hiring and retiring age, minimum service period, maximum limitation of allowances, and other factors entering into the case are, to a greater or less degree, subject to determination by the employer. The adequacy of a pension benefit may be tested by its effect upon the attitude of em-

¹ Under the auspices of the Metropolitan Life Insurance Company.

ployees toward retirement. One of several employers who have applied this test to their scheme and found it wanting, is a mine operator whose plan provides for pensions at the rate of $1\frac{1}{2}$ per cent of average wages earned times the number of years of service, but counts no earnings above \$1,500. As a result of his observation of the working of the scheme, this employer reports as follows:

"Our greatest difficulty is to get employees to retire on a pension. If they are able to work at all they prefer to accept some position where their earning power would be reduced due to their not being able to continue on the work which they had originally been performing."

With a required service period, in this case of only fifteen years and no maximum hiring age, retirement at sixty at the company's discretion would at best yield a pension of approximately \$28 per month. Under the alternative of compulsory retirement at seventy and no stipulated service minimum, a shorter service record or a wage of less than \$1,500 would result in a still lower pension allowance.

The absence of minimum service requirements and of a maximum hiring age leaves the door open for service records too short to yield an adequate pension at retirement. This applies especially to disability pensions, which usually take effect some time before the compulsory retirement age has been reached. If, as is usually the case, the regular rate of pension payments applies to these beneficiaries as well, the amount will often be quite insufficient. In view of its experience with cases of this type, a middle western insurance company, whose benefits are computed on the relatively liberal basis of one-sixth of average salary, reaches the following conclusion:

"It has been suggested that the disability benefits for employees whose term of service has been short, offer inadequate protection and that, while they are consistent with the rest of the plan it would be desirable that some measures be found whereby employees who desired might supplement them at their own expense. No practicable plan, however, has been found."

Under the recent plan of a certain public utility corporation it is provided that "in the case of an annuitant with a short term of service before retirement the Trustees may,

in their discretion, make a lump sum payment of the amount of the annuity." This procedure at least has the merit of making no attempt to provide a life pension which could only amount to a meagre dole.

METHODS FOR INCREASING ALLOWANCES

An obvious method for augmenting pro rata all pension benefits is that of making the plan contributory. The gain for the size of benefits is twofold. The weekly or monthly contributions of employees constitute a fund which accumulates interest over a series of years. The total amount of this fund, moreover, is added to the employer's contributions, and together they naturally make possible much larger benefits than the latter alone would yield, especially when these are not funded. An increasing number of large employers who have hitherto maintained non-contributory pension plans, are coming to the view, dictated by their experience, that a contributory scheme would better meet their problem of affording adequate benefits. Among others who express this view is a railroad executive, who writes:

"We believe that an employees' savings fund scheme could be successfully linked with our system, and the allowances granted by the company thus proportionately increased."

While a few plans introduce the contributory feature as a device to compel thrift and to relieve the employer's financial obligations under the scheme, this is not the typical case. As a rule, the employer's contribution is quite substantial, and sometimes exceeds the aggregate amount contributed by employees who reach the retirement stage. When, moreover, employees are consulted in the formulation of a pension plan, they almost invariably prefer a contributory to a non-contributory scheme, among the reasons for which the feature of larger benefits is not least in importance. An example of how this attitude of employees determined the action of management in the case of a certain traction corporation, is contained in the following communication from an official of the corporation:

"Our present study of pension plans, with a view of modifying the pension system in effect . . . since 1910, was under-

taken as a result of suggestions by employees that we endeavor to work out a more comprehensive pension system with a stabilized fund to which the employees themselves might contribute, and which would provide larger pensions than does the present system."

WITHDRAWAL BENEFITS

A normal feature of contributory pension schemes is the provision for withdrawal benefits or refund to employees of their contributions when their connection with the fund ceases. Such severance of connection may result through separation from the service of the company by resignation, discharge or death. Or it may be brought about by the abandonment of the plan as a whole through the action of the employer. Those plans which are of a limited contractual character, usually refund to the withdrawing employee the total amount of his contributions plus accrued interest at the rate of 3% or 4%. This is the prevailing policy and corresponds to what is the employee's equitable and probably legal claim upon the employer under such a plan. Nevertheless, one or two contributory plans which make the pension feature an element in the program of an employees' mutual benefit association, ignore this claim. They make no restitution of contributions to the withdrawing employee, on the ground that such contributions are forfeited by separation. Several plans provide in the event of withdrawal for a return of contributions without interest. A typical provision of this sort is the following from the plan of a middle western bank:

"In case of the voluntary resignation or dismissal of an officer or employee, all payments made by him to the Fund . . . shall be returned without interest."

The same rule is extended under some plans to govern cases of separation from the service by death, when this occurs before the employee has become eligible for pension. His investment in the fund then reverts to his surviving dependents or heirs, in accordance with a provision like the following:

"In case of the death of an officer or employee who has not completed fifteen years (the minimum requirement) of service,

but has contributed to the Fund, if the Trustees do not see fit to grant a pension on account of the shortness of the deceased's term of service, or for any other reason, they shall direct that all payments made by him to the Fund . . . shall be returned to his legal representatives without interest."

The reasons for withholding interest payments on contributions of employees who withdraw from the service by resignation or death, are several. The one which most nearly approaches a rational justification aims at placing a premium upon postponement of pension realization until final retirement. To this end, and also in order to discourage premature withdrawal from the service, several recent plans embody the no-interest policy. One of them, in a footnote, explains this feature as follows:

"You may wonder why it has not been arranged that you get back interest on your money if you withdraw. This is a Retirement Plan: not a Savings Plan. Therefore it has been arranged to give you a substantially greater amount in Income Annuity than would be possible if interest were allowed in death or withdrawal."

When a contributory plan is discontinued and the fund liquidated, it is the usual though not invariable practice to refund to employees all the money they have contributed together with interest. Pensioners and those eligible for pensions at the time are sometimes conceded a vested right to receive their allowances, as if nothing had happened. But in the majority of cases no such guarantee exists, and beneficiaries have to content themselves with a refund of their contributions less allowances already received. The same financial institution just cited provides for this contingency as follows:

"In case of the liquidation of the Fund, the sums remaining (after returning to each officer and employee all the money he shall have contributed with interest at the rate of 4 per cent per annum, less any sums he may have received as pension) shall be distributed by the Trustees among the officers and employees. . . ."

Under the few existing pension plans of a fully contractual character, the withdrawing employee is generally afforded an option of taking over the pension policy inclusive of the

value of the employer's contribution up to that time. As an alternative he may receive back his own contributions with or without accrued interest and, in exceptional cases, also the total of the employer's contributions added to his own. The following table attempts to differentiate the various practices found in this study:

TABLE 25: WITHDRAWAL BENEFITS: CONTRIBUTORY PLANS

One-half contributions of employee refunded without interest.	1
Contributions of employee refunded without interest.	4
Contributions of employee refunded pro rata without interest.	2
Contributions of employee refunded with accrued interest.	3
Contributions of employee refunded with 3 per cent interest.	6
Contributions of employee refunded with 4 per cent interest.	5
Contributions of both parties refunded.	3
Contributions not refunded unless plan is abandoned.	4
Total.	28

TERM OF PENSION

A pension, once awarded, ordinarily continues during the life of the pensioner. This is in accordance with the logic of the situation, which, as a rule, precludes the pensioner from gaining a livelihood by other means after having retired from employment in industry. Many plans, it is true, permit the pensioner to engage in other gainful work, usually excepting only employment with competing concerns. But such sources of income could not more than supplement the current pension allowance and cannot be relied upon to provide for future needs. Still, a number of plans impose a time limit, short of death, upon the payment of allowances. In several cases the limit is arbitrarily fixed at a definite term from the date of retirement. A certain metal mining corporation, for example, stipulates in its plan that the "pension is granted for a period of five years, ceasing if pensioner dies within that time." A more frequent limitation is ten years. In other cases the limit is made to depend upon the length of service preceding retirement. Thus, if the pensioner has given twenty or twenty-five years' continuous service to the company, as the case may be, he is entitled to a pension for life. If, however, his service record falls short of this point, his term of pension is limited to an

equivalent of his actual period of service. In the case of contributory schemes which are not on an actuarial basis, such a rule has a certain justification. Even here, however, a grading of the amount of the allowance in accordance with total contributions would be preferable to a restriction on the term of payments. Under informal pension policies it is not uncommon to grant allowances from year to year. A suggestion of this procedure, carried over into formal programs, is involved in the rule of a manufacturing concern which limits all pension awards to a term of six years, after which the case is reconsidered. This method, after all, is less arbitrary in its operation than is the observance of a fixed time limit for pension allowances, which leaves the pensioner without support when his own resources are presumably at their lowest.

TABLE 26: DURATION OF PENSION

Life of pensioner.....	210
Life, if service at least 25 years, otherwise, years of service.....	6
Life, if service at least 20 years, otherwise, years of service.....	1
6 years to life, according to period of contribution.....	1
6 years, then reconsidered.....	1
Only 10 years.....	1
Only 5 years, or less if death intervenes.....	1
Discretionary with company.....	1
1 year after death, at company's discretion.....	1
1 month after death, at company's discretion.....	2
Not reported.....	23
Total.....	248

DEATH BENEFITS

The term of pension payments, restricted in some cases, is prolonged in some others beyond the death of the pensioner. The object of such extension is to ease the shock of the pensioner's death upon his immediate dependents. It serves immediately as a kind of mortuary benefit and, if continued, also as a pension for the beneficiaries. Death benefit features may be divided into two types, according as to whether they form an extension of the pension scheme or are constituted on an independent basis. Another line of differentiation is between those features instituted on behalf of employees who die while in the service, and those

which are intended for the beneficiaries of pensioners as such. This distinction, however, is not thoroughgoing, for in a great many cases both groups of persons are eligible for the benefits.

Beneficiaries

Pension plans which embody a provision for death benefits as an integral element in the scheme, reserve such benefits exclusively for the dependents of pensioners. Sometimes, the pensioner has the right to designate his beneficiaries, but usually the pension rules designate the widow of a male pensioner and after her the minor children, if any, as his immediate beneficiaries, who shall be entitled to receive some specified compensation at the pensioner's death. This compensation may take the form of a continuance of pension payments for a variable period. The period is sometimes fixed by regulation, but more often left indeterminate and in the discretion of the pension trustees. The period, if defined, is variously stated as "limited," or as not to exceed a definite number of months or years. One year from the time of pensioner's demise is a term frequently fixed.

Determination of Amount

Sometimes, the period is longer but at a reduced rate. Thus, the widow may be entitled to one-half the amount of the regular pension for a maximum period of five or seven years. In other cases, the period depends upon the total of allowances already paid out to the pensioner during his life. For example, the dependents may be entitled to the difference between the pension payments already made and an amount representing aggregate payments for a stated period of months or years. Or they may inherit the unpaid balance of the deceased annuitant's contributions to the joint pension fund. In several schemes, some specified fraction, such as one-half or four-fifths, of the regular pension allowance is named as a basis for the continued pension, with perhaps an additional 10 per cent for each dependent child.

The amount of the death benefit is sometimes expressed as a ratio of the pension allowance or of the salary of the deceased employee, and sometimes as a flat sum. In either

case it may be paid as a lump sum instead of as a pension to the beneficiaries. It varies widely in amount. At one extreme we find provision for funeral expenses as low as \$75; at the other, a benefit equivalent to two years' salary is paid, if death resulted from an accident sustained in the performance of duty. In addition, in this case, all contributions made by the employee to the pension fund, together with interest, are payable to his beneficiary.

Group Insurance

Under some schemes the payment to the beneficiary is determined directly by the employee's length of service. This applies especially to the numerous cases of group insurance, whether as a feature of a relief association program or as an independent arrangement between the employer and an insurance company. The grading of such benefits according to salary or length of service rests on similar grounds as in the case of pension allowances. But group insurance is relatively so inexpensive and at the same time so valuable to the employee, that even a comparatively brief period of service need not disqualify him for a benefit. Some schemes provide minimum benefits for all employees after one year of service; others require a much longer period.

Other Forms

Where the death benefit is not on an insurance basis but paid out of the same general fund as the pension or other benefits, the requirements for eligibility are apt to be higher or the amount of the benefit lower. For death benefits are then merely an item of secondary importance in a larger program. An example of this graded form of mortuary benefit with high service requirements is supplied by the plan of a manufacturing concern which pays pensions to employees after twenty-five years of service, and death benefits to their dependents according to the following schedule:

- \$300 after ten years of service,
- \$600 after fifteen years of service,
- \$900 after twenty years of service, and
- \$1,200 after twenty-five years of service.

100 INDUSTRIAL PENSIONS IN UNITED STATES

Table 27 exhibits the amount and form of death benefit payments together with their relative frequency.

TABLE 27: DEATH BENEFITS

Group insurance and other forms of insurance.....	48
Mutual Benefit Association or Relief Fund.....	13
Death Benefit Plan separate from pensions.....	12
Funeral benefits; \$75 to \$250.....	12
Lump sum benefit: \$250, if death occurs within one year of retirement.....	1
Lump sum benefit: \$300, with one year service record.....	2
Lump sum benefit: \$500, with 5 years' service record.....	1
Lump sum benefit: \$100 to \$1,500, according to length of service.....	1
Lump sum benefit: \$300 to \$1,200, according to length of service.....	1
Lump sum benefit: \$1,200 to \$5,000, according to length of service.....	1
Lump sum benefit: 2 years' pension allowance.....	2
Lump sum benefit: $\frac{1}{2}$ of average annual salary multiplied by years of service.....	1
Lump sum benefit: $\frac{1}{2}$ to 1 year's salary, according to length of service.....	1
Lump sum benefit: $\frac{3}{4}$ year's salary, if death occurs before retirement.....	1
Lump sum benefit: 2 years' salary, if death occurs before retirement.....	1
Lump sum benefit: 1 year's salary, if death occurs before retirement.....	2
Lump sum benefit: $\frac{3}{4}$ year's salary plus 10% salary for each year's service....	1
Lump sum benefit: Difference between pension paid and maximum of 26 weeks' salary.....	1
Lump sum benefit: Refund of all contributions.....	4
Pension continued to widow, etc., for limited period.....	20
Pension may be continued for less than 1 year.....	8
Pension may be continued for 1 year.....	14
Pension may be continued to maximum of 6 years.....	2
Pension may be continued in part, usually $\frac{1}{2}$ rate.....	8

Relation to Pension System

Generally speaking, a pension scheme which affords retirement benefits and in addition carries disability and withdrawal features, should be an autonomous system. It is of sufficient complexity as an administrative enterprise to warrant caution in burdening it with supplementary features, such as death benefits or pensions to dependents. These can, as a rule, be more effectively afforded by some form of group insurance. The less complicated the system of pension benefits, as will appear in the following chapter, the more feasible will be the computation of costs and the economical financing of them.

CHAPTER VIII

THE COST AND FINANCING OF PENSION PLANS

NEED OF ESTIMATING COST

The great majority of pension plans in American industry have been established with no accurate calculation of their future costs and with no adequate provision for financing them. Humane motives, rivalry, or the expediency of the moment have largely actuated employers in inaugurating their various retirement schemes. But generous impulses and the desire to excel, of themselves furnish no guarantee of soundness or solvency in a pension scheme. And promises that cannot be kept, were better not made at all. A pension plan involves long-term obligations and very considerable and increasing financial burdens. The number of wrecks with which the path of pension experience is strewn testify to the very real risks of embarking upon a pension policy without properly calculating and providing for its costs in the future. Future costs, to be sure, are by no means easy to predict. In fact, they are almost impossible to compute with any degree of accuracy for a plan that involves a large element of discretion, and hence of uncertainty, in its administration. Partly for this reason and partly because the initial costs of a pension plan are comparatively slight, the financing of most plans has thus far been of questionable soundness.

FACTORS DETERMINING COST

The cost of any pension scheme is determined directly by the number and the amount of pension allowances plus any supplementary benefits granted under it. Both the amount and the number are, in most existing schemes, variable quantities. Each of them depends upon other factors, e. g., length of service, average salary, age at entrance and at retirement, the incidence and extent of incapacity, the rate of labor turnover, in a measure also the nature of the occu-

pation in its effect upon work endurance, etc. Each of these factors, in turn, is subject to variation.

1. NUMBER ELIGIBLE

Retirement Age

Out of a given working force a varying percentage would each year become eligible for retirement on pension under the rules and regulations of the plan. If the age of retirement be set at 65, the number of eligibles will obviously be smaller than at 60, and greater than at 70. Likewise, if the service requirement be 25 years, fewer will be pensioned each year than under a 20-year minimum, but more than under a 30-year rule. The number of eligibles is further affected by the particular combination of age and service requirements set up. Age 60 with a 25-year service record may be a more liberal condition than 70 with 20 years' service, but less liberal than 65 with 20 years' service.

Rate of Labor Turnover

Another important factor influencing the proportion of employees who become eligible for pensions is the labor turnover rate. Where this is high, pension liabilities are correspondingly low, since fewer employees remain in the service of the particular employer long enough to qualify for retirement allowances on the basis either of age or of service period. With a relatively stable force, on the contrary, a larger proportion of the total reach the required minimum in respect to both age and service period. In this connection, the proportion of female employees on the force is significant. For some reason, the age requirement applying to them is generally set at from five to ten years below that for men. Nevertheless, the instability of women in industrial employment is so much greater than that of men that their numbers on the pension roll are for the most part still disproportionately small.

Age Composition of Working Force

Yet another element in the situation which has an important effect upon the number of possible pensioners, is the age

distribution of members of the active force at the time the pension plan is started. If a considerable proportion of all the employees are found in the upper age groups, they will, assuming correspondingly long service records, cause a heavy accession to the pension roll in the early stages of its existence. Indirectly, such a situation entails a larger total pension burden for many years to come. The lower turnover rate for the older employees as compared with the younger is only partially offset by the higher death rate. Consequently, the normal upward shifting of the average age level in the force as a whole tends to carry with it an increase in pension liabilities for the future.

If we inquire into the conditions that determine the age composition of a working force, we are confronted with two principal facts. In the first place, the age of the concern itself accounts in part for this feature. If it has been recently established, its employees will be prevailingly young and middle-aged persons. If, on the other hand, it has been in existence for a generation or more, some of the early employees will have survived to reach old age, while many more are approaching it. And the older a concern and the nearer it approaches to stability, the larger tends to become this proportion of employees of more or less advanced years.

The second fact bearing on age distribution within the force is the hiring policy of the employer. The observance of an age limit for new employees operates constantly to keep down the average age of the whole force. If the labor turnover is marked or the concern appreciably growing, the influx of younger employees will tend to offset in some measure the natural tendency toward a higher average age level.

Growth of Working Force

This leads to a further circumstance whose influence upon the potential number of pensioners has to be taken into account. It is the growth of the establishment and, consequently, of the working force. The growth of the force either before or after the establishment of the pension plan has the effect of prolonging the period during which an increase in the annual number of pension applicants is to be effected. To illustrate: assume a concern thirty years old when it puts

a pension plan into effect and assume, further, that its growth has been uniform, its force increasing by one hundred employees each year up to three thousand. Suppose, finally, that the plan calls for a thirty years' service minimum to qualify an employee for a pension. Then, during the first year of the operation of the plan only those employees come into consideration for retirement who were members of the original group of one hundred with which the concern started. During each succeeding year the number of pension applicants is recruited from two sources instead of one. In the first place, it consists of those who entered the service thirty years previously, having been hired to replace all those whose service during each year was for any reason discontinued. And in the second place, the eligible list includes the survivors on the force from among the hundred who were added to the force by way of increase thirty years before. The former group, corresponding to the labor turnover of the particular concern, will tend to approach a constant ratio of the entire force in so far as the business reaches full growth and the payroll becomes stable. The latter group, reflecting as it does the original growth of the business from year to year, will normally tend toward a minimum with the maturity of the business.

Lag in Growth of Pension Roll

Theoretically, the annual replacements will reappear on the pension roll thirty years later in a similar proportion to that which they originally represented on the active roll. But they will appear over a period of years so that, if there had been no increase in the force, the number of pensions awarded on account of replacements would be much the same year after year. With the steady increase in the force, however, the pension roll reflects the replacements upon each increment as well as the original increment itself. This means that each successive year will tend to show an increase in the number of pensioners bearing some direct relation to the total of new employees taken on thirty years before, both by way of replacement and by way of expansion. This cumulative increase in the number of pensioners will normally continue for thirty years beyond the time when the

working force has reached a static level. The pension roll and the consequent cost of pensions in proportion to payroll will, therefore, be greater for a full-grown business than for one still in process of expansion. It should be understood that throughout this analysis two arbitrary assumptions have been made, viz., that the labor turnover rate remain substantially constant, and that all employees eligible under the thirty-year rule be promptly pensioned. However, a change in these assumptions would not materially affect the validity of the argument.

2. AMOUNT OF PENSION BENEFIT

Salary and Length of Service

Turning now from the factor of numbers to a consideration of the amount or size of the pension allowance, the latter will be found to involve fewer variable elements. As set forth in the previous chapter (on Benefits), the amount of the pension award is determined under the majority of plans by multiplying a fixed percentage of the individual's average earnings over a given period of years by his total number of years of continuous service for the company. Thus, other things being equal, the allowance is greater the longer the service, or the higher the average or final salary or wage, or the larger the fixed percentage.

But while the number of variable elements under a given plan is thus limited practically to the first two, the amount of the pension in each individual case is still not easy to forecast with any degree of accuracy. Just how much one or two per cent of average salary earned during the last ten years of service will amount to, is virtually unpredictable before the final year of service. Especially is this true where salary increases are spasmodic or affected by marked changes in the cost of living or the purchasing power of money, or where salary reductions are made in view of declining efficiency before the retirement age has been reached. In addition to the uncertainty of final salary, the actual length of service is also an individual quantity. Different individuals arrive at the minimum retiring age with different amounts of service credit. Some apply for a pension at the

minimum eligible age, while others elect to continue at work from force of habit or necessity, or in order to gain a larger pension by longer service. Pension plans which fix an optional retirement age at a relatively low point, say at 55 or 60 years, have higher costs than they would under a retirement age of 65 or 70, with similar service requirements.

If the amount of the pension benefit is to be defined at all and the amount of contributions made dependent upon it, the definition should be as free as possible from indeterminate factors. The presence of any such factors vitiates the calculation and to that extent jeopardizes the soundness of the system on its financial side. Future or final salary is a highly uncertain quantity, and to base upon it the amount of pension allowance is to discount at the outset any attempt at long-term financing.

Supplementary Benefits

An important source of variable costs for a pension system arises out of the inclusion of supplementary benefit or insurance features in the plan. These mainly comprise disability and mortuary benefits and the extension of pension payments to the pensioner's dependents after his death. Any one of these additional features is by itself less expensive, on the average, than is the pension proper. But attached to the pension, it may constitute a heavy burden upon resources primarily calculated to provide a modest income for superannuated employees. It follows that, where such features are included in the program, separate or additional provision will have to be made for them in the financing of the pension plan. This holds no less true for contributory plans and those which operate in conjunction with employees' mutual benefit associations and derive part of their financial support from that source.

As in the case of superannuation benefits, so with these supplementary allowances, the conditions governing their award determine wide variations in their cost. Thus, a disability pension—apart from differences in occupational hazard—will cost substantially more if it provides for temporary as well as for permanent, for partial as well as for total, disability. It will cost more if it is subject to no age

or service requirements, than if one or both of such minimum requirements are imposed. Similarly, it will cost more if it represents a high percentage of final salary earned, than if the percentage is low. Restrictions as to duration of the allowance or as to cause and character of the disability for which it is awarded, also have an appreciable effect on the cost of this feature. As regards the payment of a pension to the pensioner's heirs, this involves possibilities of large increases in cost, according as it is subject to limitations of time, of degree of kinship and dependence, and the like. The cost of death benefits is relatively small and simple to calculate and is, therefore, better adapted to coverage by group insurance than by pensions.

Because of the complexity and variability of the elements that enter into the cost of a pension system and because of the marked differences in labor situation between industries and between concerns, the cost of a program cannot be determined in the abstract. It must be estimated separately for each particular plan and each individual plant in which it is to operate. Even then, the problem is by no means simple, and there are differences of opinion among actuarial experts as to the possibility of reasonably accurate forecasting for any considerable period.

METHODS OF FINANCING

In view of this difficulty it is not surprising that business executives have for the most part either ignored or failed to solve the problem of financing their pension plans from the standpoint of actuarial soundness.

Occasional or Periodic Appropriations

The methods in use for providing the means for paying pension allowances fall into four main types. The first and commonest is the method of hand-to-mouth disbursements by the company to meet pension charges as they arise. This procedure frequently takes into consideration the actual demands on account of pensions formally granted and provides for them under a supplementary payroll. In some cases, the item is covered by an annual appropriation, the latter being arbitrarily limited to a fixed sum and pension

allowances made contingent upon its adequacy at any given time. Thus, the pension plan of a middle western street railway company provides for an annual appropriation by the company of the sum of \$50,000 and stipulates that, when demands for pensions exceed this sum, allowances shall be reduced pro rata. Other plans limit appropriation to an arbitrary percentage of payroll or of operating expense or of profits of the company. In any case, the current pension cost is charged against current earnings of the concern and no provision is made for taking care of indefinitely increasing burdens in the future. In the case of informal pension policies, the obligations are not to be estimated in advance even for a year, and payments are defrayed without specific appropriation out of general funds. As the total amount of such payments is usually small, the need for systematic financing, even if it were feasible, is not an urgent one. But under a formal system, even though no contractual obligation to grant pensions or to continue them be acknowledged, the moral effect of disappointing actual or prospective pensioners when the expense becomes embarrassing to the employer is, to say the least, highly unfortunate.

That there is no unanimity and no rational principle determining the allocation of pension costs in the majority of plans is evident from the following table. This shows that such costs are charged to the most diverse and sometimes unrelated departments of the corporation, and reflects the haphazard financial policy followed in regard to pensions.

TABLE 28: METHOD OF CHARGING OFF PENSION COSTS
WHEN NOT FUNDED

Operating expense.....	85
Current expense.....	15
Appropriations as needed.....	10
Earnings.....	6
Net profits.....	3
Company treasury.....	2
Company reserves.....	2
Insurance.....	2
Payroll.....	2
Salary expense.....	1
Labor expense.....	1
Welfare.....	1
Corporation expense.....	1
Not reported.....	5
Total.....	136

Endowment Fund

A second type of financing, which embodies, in a sense, the opposite principle, but which is rarely met with in practice, is the endowment fund. This consists in setting up at the outset what appears to be an adequate capital sum, either within the business or preferably as a separate fund invested in interest-bearing securities. Only the income from this fund is devoted to the payment of pensions. Unless the fund is very large, however, the income will not keep pace with the growing volume of claims against it. The company may then find it necessary either to restrict the number or reduce the amount of pension allowances under the plan, or to supplement the earnings of the fund with periodic appropriations out of revenues.

Fund Supplemented by Appropriations

This leads up to the closely related third type, which combines the feature of an initial fund with annual appropriations by the Board of Directors. The appropriations in this case may be of fixed amount, the surplus of the early years going to build up the fund against the larger demands upon it later. Or the contributions by the company may be adjusted so as to balance the annual deficit and to maintain the capital fund intact. Under the former procedure it is possible to accumulate a large fund out of interest and surplus appropriations, which will eventually be self-sustaining. Under the latter method, the income from the fund relieves the pressure upon profits to that extent. But it merely postpones the time when the demand for increasing appropriations for the pension roll will be felt as an acute strain. The company will then again face the alternative of continuing to increase their outlay for pension account, in bad years as well as good, or of curtailing the benefits to employees promised under the rules.

Reserves Set Up on Actuarial Basis

Still another method of funding pensions is that of setting up reserves for each individual employee from the time of his entrance into the service until his retirement or withdrawal. This method is based upon the principle that pensions are to

be regarded as in the nature of an earned reward, and therefore as a "function of the entire period of service, not of the time of retirement alone." If the plan provides for a pension allowance of fixed amount, the annual contributions, whether made by the employer alone or jointly with the employee, must be determined on the basis of an actuarial calculation. The object is to produce a fund at retirement that shall yield the specified allowance for the remainder of the individual's life. If the amount of the allowance is not specified in advance, the sums annually set aside may be some fixed percentage of current salary. The fund thus accumulated as well as the size of eventual pension payments will depend, other things equal, upon salary and length of service.

Most pension plans in American industries are of relatively recent origin and do not yet show in its full extent the tendency to mounting costs. Sufficient evidence of this tendency, however, is already at hand for a large number of executives with plans in operation to view the prospect with some uneasiness. Others who contemplate the establishment of a pension system for their employees are confused or deterred from so doing by the experience of those who have ventured and failed. That experience has taught the lesson that a mere hand-to-mouth financing of pension plans is sure, in time, to be a costly if not a ruinous method even for a powerful corporation. Funding, where it has been resorted to, has proved of great assistance in stabilizing the financial structure. Contributory features have materially strengthened it by distributing the burden among many. But as long as these measures have remained on a merely rule-of-thumb basis, they have not adequately taken care of the cumulative character of the pension load. They have eased the strain upon resources but have not abolished it, and the risk of insolvency still lurks in the background. To insure against this risk, the method of accumulating reserves to meet pension payments when due, is the most reliable and sound.

Actuarial Control of Funding

The following table shows the extent to which funding and actuarial control of pension expenditures are reported as existing.

TABLE 29: ACTUARIAL CONTROL OF PENSION PLANS

(A) ACTUARIAL BASIS AND FUNDING	
Reported as actuarial.....	36
Reported as non-actuarial.....	177
Not reported.....	35
Reported as funded.....	85
Reported as not funded.....	136
Not reported.....	25
Reported as actuarial and funded.....	24
Reported as actuarial but not funded.....	12
Reported as non-actuarial and funded.....	55
Reported as non-actuarial and not funded.....	122
Not reported.....	35
(B) METHOD OF FUNDING	
Appropriation by company.....	33
Annual appropriation according to fixed scale.....	7
Appropriation of percentage of payroll.....	4
Initial fund.....	8
Initial fund and periodic appropriations.....	12
Company's contribution determined by employees'.....	17
Method not reported.....	3
Total.....	85

A scientific basis for financing pension plans is almost necessarily an actuarial basis. This means, first, that upon such a basis all predictable factors and contingencies determining future costs are calculated with approximate exactness in the light of large statistical experience. In the second place, it means that assets are created sufficient to meet such liabilities, and at the time these accrue. The emphasis upon future costs is of the greatest practical importance. To disregard them is to jeopardize the permanence of the plan from the start. Early costs are deceptively low and, especially in a growing concern, give little indication of the progressive increase of the pension burden or of the period over which the increase is likely to extend. For example, under one particular plan studied,¹ the expense, according to careful calculation, would reach its maximum no less than fifty-seven years after its establishment. The expense would then be seventy-eight times as high as for the first year and seven times as high as for the tenth year of the operation of the plan.

The factors making for this increase in cost have already been considered under the categories of number and amount

¹E. B. Tolsted, "Pensions for Industrial Employees," *Cotton*, November, 1920.

of pension allowances. It remains to note the significance of the fact that pension plans are inaugurated, as a rule, years after the establishment of the business, and that most plans undertake to cover present as well as future employees who qualify under the rules. This implies the assumption by the employer of the entire accrued liability or the cost of all claims for pensions due to past service of employees now on the roll. Under a systematic financing of pension costs, the burden is distributed over a period of years during which interest accumulates upon the reserves and augments them. If the period is short, as it necessarily will be in the case of employees already old in the service at the time of the installation of the plan, the sums monthly set apart by the company as to these employees must be relatively large. For a given pension at 65, a man aged 45 must have set aside for him each month more than three times as much as the man at 25, and the cost continues to increase at an accelerating rate as the retirement age approaches. The shorter period during which payments can be made into the pension reserve for the older man, at the same time allows of much less interest accumulation upon those payments. It would seem, therefore, more economical for a corporation to establish and fund its pension plan early in its career, rather than later when the problem of accrued liabilities has grown to formidable proportions.

Financing Informal Pensions

As already indicated, the financing of an informal type of retirement allowance on an "individual merit" basis presents no serious problems. Neither the number nor the amount, nor even the duration of the allowance, is fixed. In theory always, and often in practice, the whim and convenience of the employer dictate the terms and conditions governing each case of retirement. The allowances being in the nature of gifts by a benevolent employer to certain needy employees, their bestowal conveys no further rights to the recipients. Nor is the giver morally committed to any specific obligations in the future or to other employees, even to those in a similar situation. The problem of "accrued liabilities" in the strict sense does not exist under this type

of arrangement, since liabilities as such are not recognized. It is, therefore, not necessary to set aside a corresponding item of assets. The cost of the scheme is largely subject to the employer's control and is easily kept at a minimum. This is a feature among others that commends an informal policy to many employers, even to some large ones. A manufacturing corporation operating seven plants writes as follows: "We do not guarantee a pension to anybody. We felt that the cost of establishing an adequate pension system, taking full account of the 'accrued liability' at the inception of the plan, would be excessive." Modest allowances are granted only "now and then in the case of old employees who have become superannuated and whose individual circumstances are such as to make some sort of relief necessary." Another concern employing normally about thirteen hundred persons, twelve hundred of whom are men, reports that during twenty years under such a policy only two employees have been pensioned.

Financing Formal Discretionary Pensions

Under a formal pension plan of the discretionary type, the costs still depend—although within much narrower limits—upon the disposition of the employer or the policy of the company. Rules defining minimum and maximum conditions and an administrative board applying these rules, give a certain functional regularity to the system. They also set up certain fairly definite expectations on the part of employees and pensioners, which call for a corresponding financial preparedness on the employer's part. Still, there is no guarantee that this balance will be maintained in unprofitable as well as profitable years. In fact, the employer aims in various ways to protect himself against eventual pension demands which are supported by the rules but not by the funds available for the purpose at the time. He frequently does so by reserving the right to withhold, reduce or terminate allowances at his discretion, and even to discontinue the plan altogether. A typical clause in a discretionary scheme intended to exempt the employer from the inconvenient consequences of his too liberal promises,

is the following from the pension plan of a life insurance company:

"The system creates no contractual or vested rights on the part of any employee. It will be administered by the company according to such rules and regulations as it may adopt from time to time, and may be construed, amended, suspended or discontinued in whole or in part at any time, either in its general application, or with reference to any individual case, at the discretion of the company."

In actual practice, it is true, retrenchment or repudiation of the sort indicated is not often resorted to, at least not lightly. Still, the all but universal assertion of the right by employers suggests the importance they attach to the protection it affords. Actually to invoke that protection on behalf of drastic reductions in benefits or in the number of beneficiaries of the plan, is to declare its bankruptcy. It is in keeping with the non-accountable one-sidedness of such plans, that their financing is controlled by no stated policy.

"The Company assumes no liability under the system, and any payments thereunder will be made from current revenues in the same manner as the other ordinary expenditures of the company."

This provision obviously implies that pension payments depend upon the vicissitudes of the business and are liable to reduction or interruption with a falling off in revenues.

Financing Limited Contractual Pensions

In the case of the quasi-automatic or limited contractual type of pension plan, a greater degree of financial stability is imperative. The liabilities have become sufficiently well defined to be calculable, and at the same time to be inescapable on pain of grave consequences for the credit of the employer. At least the continuance of existing allowances is guaranteed. Especially those plans in which the contribution of employees is an essential feature, force to the front the need for sound financing. Employees who have invested their individual savings in a company pension scheme, have a legal as well as a moral right to protection against loss. Their own investment must in any event be safeguarded. But in addition, they are entitled, in so far as they meet the

stated requirements, to enjoy the promised benefits. They cannot have this assurance unless the financing of the scheme is actuarially sound.

Actuarial Valuation of Liabilities

The distinguishing characteristics of this fourth type of financing pension plans—the actuarial type—have already been suggested. It consists primarily in a systematic valuation of liabilities, both past and future, and the setting up of reserves to meet them as they mature. The valuation of these liabilities is the more difficult, the more diverse the factors determining cost and the more uncertain their operation. The actuary in making the calculation takes account of the age and sex composition of the working force, with a view to ascertaining the number of employees now on the force who have attained or expect to attain during each succeeding year the stated retirement age. He then ascertains the extent of accrued liabilities by computing the amount of back service credit for each employee at the time of launching the plan. From this he proceeds to determine the number of employees who would during each year fulfill the prescribed service requirement for a pension, provided they remained alive and active on the force. Further, on the basis of past experience in the given plant and in similar plants, he estimates the probable rate of labor turnover in the years to come, and likewise the probable rate of growth of the working force from the indications of its previous growth. Prognostication of either of these variable quantities, particularly of the latter, is hazardous, owing to market changes and other factors lying outside the business as well as within, that are not measurable with accuracy, even if they could be foreseen.

Far less difficult is the determination, first, of the probable number of employees who will be eliminated each year by death before reaching the age of retirement and, secondly, of the chances of life, at their respective retirement ages, of the men and women covered by the pension program. The basis for computing these quantities is found in the general mortality tables, corrected for the peculiar hazards and other special conditions of the industry in question.

The result of all these calculations, together with the valu-

ation of the various benefits under the plan, is a more or less valid estimate of the cost of the plan. The forecast is merely approximate, however, and has to be checked against actual experience at frequent intervals, so as to guard against the unperceived accumulation of discrepancies or errors in the original calculation. But with these reservations, it supplies the essential information upon which a sound financing program extending over a considerable period of years can be based.

Economy of Early Funding

Such a program consists of adjusting the monthly or annual rate of contributions to the fund in such a way as to carry future costs with the least strain. By distributing these contributions evenly over a series of years, the burden of pension payments is very materially lightened. This can be illustrated by the following simple example. To purchase an annual income of \$400 for a man retiring at the age of 65 would cost the employer about \$3,800 if paid to an insurance company in a lump sum at the time of retirement. But if the plan is on an actuarial basis, the employer will have a more or less definite conception of the number of pensioners that he may expect on the roll from year to year for a number of years to come. He will then be in a position to build up a reserve as to each of such expected pensioners by a series of fixed annual installments toward the sum of \$3,800. But each installment will be augmented by the amount of compound interest accruing on the fund during the time it accumulates. Thus, if contributions begin forty years before the pension becomes due, i. e., when the employee is twenty-five, each annual installment amounts to only \$38.45. If they begin later they will be correspondingly fewer and will have less time to accumulate interest, consequently each installment will be more than correspondingly larger, in order to produce the same annuity of \$400 at age 65.

It is held by some actuaries that the labor turnover rate, together with eventual changes in the force and in the wage rate, are, under present conditions, so unpredictable as to render even a rough valuation of contingent liabilities im-

practicable. Those who take this position are inclined to advocate short rather than long-term commitments for pensions and the single premium purchase of life annuities at retirement rather than their accumulation through the years. But some of the best authorities on the subject consider the difficulties not insuperable and favor the consistent application of funding principles to the problem of financing pensions. Still another group emphasize the advantages on the side of deferred life annuities, which can be purchased year by year and funded and become the property of the employee as soon as earned. This particular type of benefit expresses a conception of pensions as a form of deferred pay. It usually, though not necessarily, carries with it a guaranteed withdrawal feature and is otherwise fully contractual in character.

In the few cases of pension plans on an actuarial basis, the contributions to the fund are usually computed in terms of a percentage of payroll. One of the advantages of this method is that it automatically keeps the volume of appropriations reflecting the size of the working force and the general level of wages earned. The important consideration, however, is not this correspondence which is only an incidental convenience, but the calculation of the correct percentage from the outset. Such a percentage is one which, adhered to through the years, will yield a sufficient capital sum to meet all pension liabilities as they mature. It is a percentage which enables each generation of employees to provide in a sense their own pensions. This principle has nothing in common with that of basing appropriations for current pensions upon some constant percentage of active payroll, to which they bear no rational relation. Thus, a certain large manufacturing corporation which operates its pension plan on an actuarial basis, has a fund set apart for the purpose and makes monthly contributions to this fund in a fixed ratio to payroll. From the mere fact that between the years 1908 and 1919 its pension roll grew from eight to one hundred seventy-six members, it is evident that the current pension expense can bear no relation whatever to active payroll, either in amount or in rate of increase. A large public utility corporation in the Middle West, whose

plan is funded on an actuarial basis, makes an annual contribution equivalent to 2.7 percent of total payroll. This amount will for a number of years following the establishment of the plan be considerably in excess of current pension needs. The excess goes toward building up the fund against the greatly increasing demands upon it in future years. The use of a constant percentage of payroll as a basis of contributions to be set aside for future pensions, presupposes that liabilities on account of past service have been separately funded or their amortization provided for.

Financing of Contributory Pension Plans

With the solvency of the program thus definitely secured, a foundation is laid for the participation of the employees in the financing of the benefits. Whatever the respective amounts paid into the fund by employer and employee, the latter's contributions will, in the nature of the case, take the form of installments out of salary or wages over a period of years. To this extent, at least, the contributory plan is necessarily funded. A frequent practice is for the employer to engage to match the contributions of each employee with similar amounts of his own. He then has the alternative of paying his contribution into the fund, in whole or in part, at the time each pension is granted, or of setting aside a reserve out of annual payments to parallel those made by the employees. In the latter case, the employer may elect to invest and administer the fund through his own representatives acting as a pension board; or he may delegate these functions to an insurance company specially equipped therefor. Table 30 summarizes the basic methods governing the contributions of both parties to such plans.

The lump sum or single premium payment by the employer, providing pensions only after they have been earned, may also be made to an insurance company in return for an annuity policy in favor of a retiring employee. Whether applied thus indirectly or directly through the employer, the method has the advantage of obviating the difficult computation of withdrawal and turnover rates, although it compels the employer to forego the substantial economies of early funding. It is, moreover, a procedure better adapted to a discre-

tionary than to a strictly contractual type of pension policy, for it permits the employer larger possibilities of withholding or curtailing a pension when due. Not infrequently, even under contributory plans, the employer's contributions are but partially funded or not at all. The result, at least in one noted case, has been to deprive actual pensioners of their earned allowances when the company passed under new management. The case in point is that of Morris and Company, whose pension plan limited the company's liability, and therefore its pension reserve, to only \$500,000, even after the funded value of pensions fully accrued amounted to more than seven million dollars. A change in the financial control of the company in 1923 entailed for about four hundred of its pensioners an almost total loss of the allowances upon which they had been led to depend for support in their old age.

TABLE 30: BASIS OF CONTRIBUTION IN CONTRIBUTORY PENSION PLANS

Contributions by employees:	
Stated percentage of salary.....	17
Amount scaled according to salary group.....	4
" " " " length of service.....	2
" " " " age.....	1
Fixed amount.....	4
Total.....	28
Contributions by employers:	
Equal to employees' contributions.....	12
" " " " plus cost.....	1
Initial fund.....	2
" " plus appropriations.....	1
Company's discretion or not specified.....	5
Amount scaled according to salary group.....	3
" " " " length of service.....	2
" " " " age.....	1
Percentage salary.....	1
Total.....	28

Their Administration

The advantages and disadvantages of delegating the administration of pension plans generally, are a subject of current debate. Most experts and employers seem to agree that the value of actuarial advice and assistance in the initiation of a pension plan, especially of the contractual

type, is very great. They are by no means agreed, however, as to the desirability of turning over to an insurance company the routine administration of the plan, although a recent tendency toward such a policy is fairly evident. The favorable argument stresses the special facilities a large insurance company has for diversified and secure investment of funds and also for supervising the disbursement of allowances to pensioners. The great majority of industrialists, on the other hand, are still disinclined to relinquish direct control over the investment and management of their pension funds. Viewing their pension plan as a means to improving industrial relations in their establishments, these employers wish to prevent the operation of that plan from falling into impersonal routine and thereby losing the human touch and flexibility. For similar reasons they wish to preserve something of the discretionary character of the plan itself. The intervention of an outside agency is, therefore, unwelcome, inasmuch as it makes for an inflexible and more or less automatic operation of the system. Even where the contractual principle is fully accepted by an employer, he not infrequently prefers, if only for reasons of possible economy, to administer his pension plan independently.

Financing of Accrued Liabilities

The problem of financing "past service" or accrued liabilities existing at the time of the inauguration of a contributory pension plan presents some peculiar features. Those employees who by dint of long service are approaching retirement on pension, are rarely in a position to assume their proportionate share of the cost of an annuity. If the annuity be a fixed sum based on the joint contributions of both parties in approximately equal ratios, these long-service employees would be virtually excluded from the benefits of the plan by the prohibitively high rates of contribution required under the actuarial principle. If the amount of benefit be variable, depending upon total contributions, these individuals would again be entitled to merely nominal allowances. Consequently, since it is these employees whom the new pension scheme is immediately intended to benefit, some readjustment of the burden of cost is needed. In the

first place, membership in a contributory scheme is, as a rule, optional for employees in the service at the time of its installation. This option allows those to remain outside who cannot or do not wish to assume the corresponding financial obligations. For all future entrants into the service, however, membership in the plan is in most cases obligatory, being an express condition of the contract of employment. Under the optional provision, those who elect to join the plan, frequently do so under an arrangement that does not unduly penalize the veteran employee by imposing upon him the whole burden of accrued liabilities. One actual way of crediting past services of such employees is to allow them to contribute to the fund on the basis of their age at entrance into the service instead of their age on joining the plan. This automatically shifts the burden of accrued liabilities upon the shoulders of the employer. The same object is attained by the employer making contributions to the fund as to each employee equivalent to the aggregate of contributions which the latter would have made had the plan been in operation at the time of his entrance into the service. The liability is not always unlimited, however. In the following case, that of a mid-western bank, the limit is set at ten years:

“In order that officers and employees of the Bank may have the benefit of their service during the past ten years as a basis for pension privilege, the Bank will allow credit for the entire time of service and employment of all officers and employees prior to the date of this plan, not exceeding, however, in any case, the period of ten years; and to meet the additional cost incurred by such allowance for past service and employment, the Bank will establish an ample reserve, without calling upon such officers or employees to make larger contributions on account thereof.”

Under the rules of most contributory plans, the individual employee pays some stipulated percentage of his salary into a joint or separate fund. The percentage, while in most cases constant for the active period of his employment with the company, will be higher or lower according to his age at entrance. It has already been pointed out that the cost of providing a given annuity at a definite retirement age increases with rising entrance age. This increase in cost may

be distributed in several ways. It may be met by scaling upward the contributions of employees themselves in accordance with their entrance ages, or the contributions of employers or of both jointly on the same principle. In some cases, the percentage contributed by employees to the fund is graduated according to salary earned or to length of service. Both of these principles represent an arbitrary basis, since the costs arising from the factors of salary and service period are normally met by a constant percentage on current salary. They are relevant, if at all, only with respect to the problem of financing past service, where this is made a charge upon the employee himself. Still other plans define the employee's contribution in terms of a fixed amount, which varies with his salary. The principle here involved is essentially similar to the percentage-upon-salary contribution.

**PART II: SUGGESTIONS REGARDING THE
ORGANIZATION AND ADMINISTRATION
OF PENSION PLANS**

PART II

SUGGESTIONS REGARDING THE ORGANIZATION AND ADMINISTRATION OF PENSION PLANS

Under the pressure of high or rising costs, many employers who have pension systems in operation are seriously considering the question of their revision and reorganization. Other employers, who have as yet no organized retirement plans, but who see in them possibilities for improving personnel relations, are studying the whole problem with a view to developing a sound policy of their own.

It is not the purpose of this report to recommend or to discourage the establishment of pension plans in industry. Each employer should decide for himself the best way of meeting the problem of the superannuated employee. His decision may well be reached in the light not only of his own judgment but of the judgment and experience of other employers, similarly situated, who have handled the problem with a greater or lesser degree of success.

THE ADOPTION AND PURPOSE OF THE PLAN

On the broad question of policy, the employer should act in accordance with his conception of his responsibility to his employees on the one hand, and, in the case of corporate enterprises, to his stockholders on the other. In respect to the former he will be guided by his appreciation of the social importance of the problem of the superannuated worker and the rôle of industrial management in relation to it. Among the specific factors immediately entering into his calculation are such as the supply of qualified labor in the community in which he operates, the size, composition and morale of his working force, and the character and extent of his productive operations. If, in view of these various considerations, the employer decides in favor of a pension system for his plant, by the aid of the analysis of the general experience with pensions systems presented in this report he may be better

able to select those features which experience has shown to be sound, and to adapt them to the needs of his own particular situation.

Before entering upon a pension policy, the employer should have a clear conception of the financial liabilities he assumes thereby. Foresight in this respect is essential to success, because a pension plan involves long-time commitments whose magnitude may not be readily apparent. If the plan adopted is to be morally and legally as well as financially sound, the promise it holds out must be supported not only by the will but also by the ability of the employer to meet it. Pensions extend many years into the future. Few pension plans in American industry have been in operation long enough to allow of conclusive judgment as to their ultimate solvency. But sufficient experience has already been had with some of them to demonstrate the instability and eventual costliness to employer or employee of a pension plan which makes no current financial provision for meeting liabilities currently accruing. It is this feature in a majority of existing plans that is potentially the weakest, and that warrants the most deliberate and careful study by any employer about to embark upon a pension program.

In setting up a pension system, the employer usually pursues the two-fold aim of promoting the sense of security of the employee and through it the prosperity of the business. Both must be steadily kept in view, for it is only in so far as the employee is benefited, either in fact or in anticipation, that a pension plan will bear fruit in the contentment, loyalty and morale of the worker. Even the gain of efficiency realized through the elimination of the superannuated from the force cannot long be maintained, if the manner of such elimination is viewed by fellow-employees as less than fair or humane. Furthermore, the use of a promise of a pension to enforce long service or for disciplinary ends, may be regarded as an encroachment upon the worker's independence and is almost certain to arouse resentment.

Choosing the Type of Plan

Having determined the preliminary question of whether or not to adopt a pension policy, and bearing in mind the pur-

poses he wishes such a policy to serve, the employer faces two further problems. He must first decide upon the type of plan and the particular features best calculated to further his purposes, and secondly, he must consider the cost, present and future, of operating such a plan. An employer may choose between the vague, informal arrangement of an "individual merit" program and the more or less definite and binding formal pension plan. If he prefers the latter, he may then elect either the contributory or the non-contributory method of financing it.

Formal vs. Informal Plans

The balance of advantage to the employer as between the formal and the informal type of plan is in most cases on the side of the former. For the proprietor of a small establishment, say of less than fifty persons, who can successfully maintain direct human contact with his employees as individuals, it may be possible to derive greater benefit at less cost from an informal pension policy than from a regularly set-up plan. In this case, however, since the benefit will appear chiefly in the form of personal loyalty, a high degree of impartiality and discernment on the part of the employer is essential if this benefit is to be realized. The informal plan presupposes, in fact, something of a paternalistic relationship between him and his employees. He may find himself compelled to keep closely informed as to the circumstances of every individual in his employ, their earnings, savings, and spendings, so as to be in a position to make his awards on an adequate basis of knowledge and insight and in accordance with relative justice.

The informal type of pension procedure should be abandoned when its possible advantages turn into potential or actual disadvantages with the growth in size and complexity of the working force. The employer cannot under these circumstances avoid loss of intimate contact with the mass of employees and consequent dependence for information regarding "individual merit" upon subordinate officials and minor executives. But he can and should minimize and even eliminate, so far as possible, from the pension award the

arbitrary element and with it the danger of favoritism and unfair discrimination.

He may do this by setting up a formal pension plan with uniform rules and standards applicable to all cases. These rules should define, first, the conditions of eligibility for pension benefits, and secondly, the amount of the retirement allowance or the manner of its computation. Age and length of service, disability, and rate of contributions are relevant in this connection. In the third place, the plan should outline the administrative machinery and procedure by which the substantive regulations are given effect. Finally, the manner should be specified in which the financial resources are to be provided, upon whose adequacy the soundness of the entire plan depends.

Once the employer has committed himself to a formal plan, the logic of the situation suggests giving both definiteness and binding force to the promises and provisions it makes. Every employee, both young and old, should be able to grasp the benefits conferred by the plan and the conditions to which these are subject. In order to give the maximum effectiveness to the plan as a stimulus to morale and a stabilizer of the working force, it should carry conviction to the employee—the young as well as the old—that promises made will be redeemed. It will carry this conviction to the extent that the prospective benefit is both adequate and definite and can be counted on with certainty.

The discretionary features, now so prominent in most pension plans, should be retained, if at all, only within narrow limits. Either the promise of a pension from the employer involves an obligation upon him, or it does not. If not, such a promise may easily raise a doubt as to the employer's sincerity and thus partially defeat its own purpose. If the obligation is really assumed, on the other hand, it should be clearly acknowledged and provided for, although the right of final decision may be reserved by the employer for certain situations and contingencies. In cases of retirement on account of disability, for example, the individual's allowance may be made to depend upon the degree, duration and other circumstances of the disability. Further, the exact time at which an individual's retirement shall become effective may

be left to the employer's discretion. Even in these cases, however, the appeal to objective tests, such as a physical examination, and to definite scales of benefits, is preferable to reliance upon arbitrary judgment, however humane. Since every arbitrary feature in the operation of a pension plan introduces an element of uncertainty into the cost equation, it is desirable, from this standpoint alone, to replace discretionary by contractual provisions.

Is the Contributory Plan Desirable?

Experience with industrial pensions is not conclusive either for or against the contributory principle of financing them. Recent tendencies, however, are distinctly in the direction of sharing the cost burden with the employees on an equitable basis. This is desirable for two reasons: it makes possible more adequate benefits without increasing the employer's financial burden; and it favors the application of the contractual principle to the plan in whole or in part. The share of the burden assumed by the employer should be substantial, so as to give evidence of his serious concern in making the plan a success and the benefits worth while. Participation should be optional for employees, present as well as future, and all regular employees should be eligible. The features and benefits of the plan itself should be relied on to commend it to the judgment of the great majority.

FIXING BENEFIT CONDITIONS

Age

Foremost among the conditions prerequisite to the receipt of a retirement benefit should be that of age. In so far as a pension is a superannuation benefit, it should become due at a time in the employee's life when his elimination from the active force is most expedient for the business, and his inability to obtain other remunerative work renders him more or less dependent upon such benefit for support. It is desirable, therefore, that the minimum age limit for retirement be set neither so low as to encourage premature withdrawal from industry nor so high as to exclude from benefits those individuals whom long years of arduous service con-

demn to a relatively early incapacity. This latter contingency, however, is more adequately met by the provision of a disability benefit, which accrues irrespective of age. The maximum or compulsory age limit, on the other hand, should be fixed high enough to make impaired efficiency rather than years the basis for retirement. A certain flexibility in the application also of this limit is desirable in individual cases. Given such administrative flexibility, the lower and upper age limits might fairly be set, for most industries, at 60 and 70 years, respectively. A differential of several years in favor of women, whose occupational longevity is much below that of men, and possibly also in favor of industrial as against clerical and other non-manual workers, is a justifiable discrimination.

Service Period

While a long and unbroken record of service is one of the principal aims which an industrial pension policy seeks to promote, it should not be made a condition of receiving an annuity. It should be viewed, rather, as an incidental result of mutually satisfactory personnel relations, to which a pension system may be one of the major contributing factors. To impose a minimum service period as a qualification may interfere unduly with the employee's freedom of movement and choice. Especially when such a minimum is set as high as twenty, or even thirty years, it operates to bar from any benefits whatever not only those who enter the service late in life, but even those who barely fail to reach the required period. If the pension is not to bear an undesirable discriminatory character, it should accrue by virtue of other factors than that of long service. Nevertheless, a service minimum of five years or less would be justifiable for the purpose of including in the scheme only those members of the force who had attained regular or permanent status.

Disability Benefits

Disability benefits are properly subject to conditions somewhat different from those governing superannuation benefits. Age limits should be waived entirely, since at whatever period

of life the worker is overtaken by misfortune of this kind, he is equally in need of relief. Service requirements should be sufficiently flexible to permit any permanent employee to qualify for benefits if totally incapacitated. The benefit should continue only during disability, and malingering should be prevented by periodic re-examination by a physician.

DETERMINING THE AMOUNT OF BENEFITS

It is highly desirable, if not essential, to the success of a pension system, that the benefits it affords shall be adequate. Since adequacy in a pension is necessarily relative to the individual's customary standard of living, it can be most readily approximated by taking his earnings as a basis for computation.

Final Salary as a Basis

The prevailing method of computing the amount of the pension, however, by multiplying a stated percentage of final salary by total years of service, is unsound from an actuarial standpoint. It renders impossible the calculation of the amount long in advance of retirement, and thereby discourages any attempt to provide systematically for the cost of the pension before it is due. Not final but average salary or wage is to be preferred as a basis. This applies even to the discretionary and the limited contractual types of plan, under which the indefinite promise of a pension is not conceived as constituting a legal liability upon the employer.

Fund Based on Average Salary

Whatever the form of a pension, its cost is materially reduced by funding. Since the pension is, in part, at least, a special compensation for long service, each year's service should contribute pro rata to the creation of the fund, out of which the eventual annuity is to be paid. If such annual contribution by the employer, or by him and the employee jointly, bears a definite relation to the latter's earnings during the year, the resulting fund will at retirement yield him an annuity proportionate to his average wage or salary on the

one hand, and to his length of service on the other. Thus, instead of relying upon a hard and fast minimum to secure long service, this procedure supplies a material incentive in the form of progressively increasing benefits. The longer the period of service, the larger the accumulated fund and, consequently, the more liberal the annuities to be defrayed therefrom.

Maximum and Minimum Limits

The actual amount of the annuity should be subject to a maximum and a minimum limit. The maximum should not be so liberal as to obviate the need of thrift or to induce premature retirement for the sake of enjoying the annuity. On this ground it may be desirable to set an upper limit upon the amount of salary on which a pension is to be computed, seeing that the high-salaried employee or official of a corporation usually has other resources in his old age to supplement his pension. The minimum allowance, on the other hand, should be sufficient in any case to protect the recipient against destitution and dependency.

Disability Benefits

Where a pension plan embraces provision for disability incurred prior to the retirement age, such provision should take into account the degree and duration of the disability and the extent to which it is covered by workmen's compensation under the law. It is legitimate to narrow down the definition of disability for the purpose of treating it as a pension liability, and to consider, for example, only cases of total incapacity or such as are not strictly occupational in origin. A certain latitude may well be left to both parties as regards the form and size of payments in such cases.

Withdrawal Benefits

The employee who voluntarily withdraws from the service before reaching the retirement stage has a moral claim to a benefit out of employer's contributions only in the event and to the extent that the prospect of a pension has induced him to accept less than the prevailing wage for his work. If the

pension is demonstrably a deferred wage, equity requires that it be paid in proportion to the length of service. Under a jointly contributory plan, that portion of the fund which is due to employees' contributions must under all circumstances provide withdrawal benefits to the employee who for any reason leaves the service. Such benefits should normally consist of a refund of all his contributions to date, together with interest. It is not advisable, as a rule, to withhold the accumulated interest as a penalty upon withdrawal, although it may be justifiable to assess the per capita administrative expense in such cases. As an alternative to the refund, the withdrawing employee should be given the option of continuing his contributions to an insurance company or otherwise conserving his equity in the eventual annuity.

Death Benefits

On a strictly actuarial basis, a death benefit constitutes no proper charge upon the pension fund. The pension benefit being predicated upon the average life expectancy in the group, special provision would be necessary to finance the death benefit as well as the disability and other supplementary benefits on any adequate scale. Death occurring prior to the retirement age is a hazard that is advantageously covered by group insurance. In the event of a pensioner's death, on the other hand, the circumstances of each particular case should determine the question of relief of dependents.

COST OF BENEFITS

The size of the pension benefit and the conditions under which it is to be enjoyed should be defined, as far as possible, in view of the probable cost. Benefits promised represent financial liabilities upon the employer. Unless he can foresee and control the extent of such liabilities, he cannot make effective preparation for meeting them. If he fixes the terms governing the accrual of a pension either by guess-work or by simply copying the features of some other plan, he may find the costs out of all proportion to expectations. The terms should not be either liberal or niggardly in themselves, but should be calculated to afford an adequate annuity without

imposing upon company income excessive financial burdens which might require retrenchment or repudiation of obligations assumed.

The calculation of the cost of a pension system has to be undertaken separately for each plant and with reference to the distinctive features of each plan. Two sets of conditions should be taken into account: those characterizing the industry and the labor in it, and those embodied in the plan itself. On the one hand, a quantitative estimate should be made of the effect on cost of pensions of the length of establishment of the company, the age and sex composition and past services of the active force, occupational hazards and mortality rate, turnover rate, and hiring policy. On the other hand, a valuation should be attempted of those liabilities which arise from the rules and requirements governing eligibility, the size of pension payments and the manner of their computation, the nature and extent of supplementary benefits, and the limits of discretionary powers reserved to the employer.

Owing to the difficulty of forecasting costs where so many indeterminate factors are involved, it is highly desirable to simplify the calculation as far as possible. This can be in large measure accomplished by making costs the point of departure, i. e., fixing the rate of contributions in advance. The exact size of annuity payments, left undefined, will then depend directly upon the aggregate of contributions credited to each individual who arrives at the retirement age.

In view of the characteristic upward trend of pension expenditures over a long period of years, it is important for the employer to know at the outset how fast and how far this upward movement is likely to go. Unless the normal increase in the pension roll, due to the excess of new pensions over those terminated, is clearly apprehended and evaluated beforehand, it will not be adequately met in the end by the accumulation of reserves. The customary practice under a majority of non-contractual plans of paying pensions out of current revenue, is unsound, in that it fails to provide against the mounting burden of cost. In order to avoid the risk of insolvency and the temptation of scaling down liabilities whenever these become embarrassing to the employer, he should calculate his future pension liabilities and fund them.

The calculation being a highly technical task, may be made by a professional actuary or under his supervision, or in many cases by competent members of the employer's staff.

FINANCING PENSIONS

Limited as well as fully contractual pension plans imply the definite assumption by the employer of a financial obligation proportioned to the benefits promised. The prevailing method of financing pensions out of current income does not provide a safe foundation, in the long run, for discharging these obligations. Since the pension roll tends constantly to increase, irrespective of the temporary prosperity of the business, the need is evident for some systematic procedure for building up reserves against the ascertainable demands of the future. The "hand to mouth" method, therefore, should give way to a "pay as you go" method. This means, in effect, the funding of liabilities as they arise, based upon a more or less dependable valuation of those liabilities.

The Individual Reserve System

Among the several variants of a funding procedure, the setting up of individual reserves has been shown by experience to be best adapted to the requirements of a pension system. The employer who adopts this procedure should appropriate and invest periodically on behalf of every employee covered a definite amount, which may be a fixed percentage upon the employee's wage or salary. The amount thus set aside should form a trust fund which cannot be diverted to other uses while the employee remains on the active or the pension roll. When he is retired, the reserves then standing to his credit, including, in the case of contributory schemes, the aggregate of his own contributions augmented by compound interest, should automatically become the capital fund for a life annuity.

Accrued Liabilities

When a pension system is introduced years after the establishment of the business, the employer will usually find it advisable to assume the "accrued liabilities." Although no

promise of pensions had been made and no expectations raised, the reaction upon morale demands that the older members of the force shall be at no disadvantage over against the younger, on account of a late start by the employer in setting up the plan. The employer may fix a limit to the amount of "past services" which he is willing to credit toward a pension. A maximum of ten or fifteen years will generally be adequate. Where the plan is contributory, the employer may decide to assume the employee's share of contributions on account of past service, as well as his own. Or he may permit the employee to contribute on account of future service at a rate based on his age at entrance into the service instead of into the plan. In the latter case, he should credit the pension fund of every employee then on the roll with an amount equal to the total of contributions that would have been made both by and for him, had the plan been in operation at the time of his entrance into the service. Either of these concessions on the employer's part, however, is in the nature of a special consideration and reward for long service rather than of meeting obligations actually incurred.

New employees who enter the service after the pension plan has been launched, should be expected to contribute, if they come under the plan at all, at rates corresponding to their entrance ages. These rates should be computed according to mortality and interest tables, so that in conjunction with the employer's contributions they will yield an adequate income at retirement. To this end, those who enter early in life need to contribute at a much lower rate than the late entrants whose remaining years of service and of contribution will be relatively few. The grading up of rates according to starting age need be less steep where the rate is expressed as a percentage of salary and salary itself increases more or less regularly with length of service, than where these conditions do not obtain. If a relatively low hiring age is maintained in a plant, the rate of contribution may even be expressed as a uniform percentage of wage or salary without unduly jeopardizing the adequacy of the benefit.

Pension costs on account of "past service" should be funded separately from those arising from "future service." Accrued liabilities are of a different order from accruing

liabilities, in that no reserves have been set up toward liquidating the former at the time the services were rendered. If credit is to be given for such "past services" without their being separately financed, it would be at the expense of the fund destined for meeting currently accruing obligations. It would thus create a deficiency in the fund, which has to be covered sooner or later to keep it solvent. The amount of accrued liabilities at the time of the establishment of a pension system or of its reorganization on a reserve basis would usually be too large to render it practicable for the employer to appropriate the whole of it in one sum. He should, however, preferably with actuarial assistance, calculate the total of such liabilities and gradually provide reserves for discharging them.

In conclusion, it cannot be too often emphasized that a policy of early funding on a scientific basis is the essence of economy and good psychology for a pension system that is to remain solvent. If a system has been started without adequate financial provision for meeting the cumulative pension costs of the future, the first essential step toward placing it on a permanently sound foundation, is to make an actuarial valuation of liabilities under the plan. In the light of the facts and forecasts thus established, the employer may find it desirable to revise his plan, so as to give clear definition to his obligations and to accord them contractual validity. He may then proceed to finance the plan upon a reserve basis, thus securing it against eventual insolvency, himself against embarrassment, and his faithful employees against distress in their old age.

APPENDIX

APPENDIX

LIST OF COMPANIES HAVING PENSION PLANS

Company	Number of Employees		Year of Organization	Type of Plan		Extent of Contributions by	
	Male	Female		Non-contributory	Contributory	Employee	Employer
Acme Steel Goods Co..... Chicago, Ill.	700	50	1880	Discretionary	..	..	..
S. L. Allen & Co..... Philadelphia, Pa.	250	20	1880	..	Contractual	\$50 to \$2.50 per week	Equal amount
American Brake Shoe and Foundry Co..... New York City	5,000		1902	Discretionary	..	..	..
American Brass Co..... Waterbury, Conn.	10,382	572	1899	Discretionary	..	..	..
American Can Co. and subsidiaries..... New York City	..	..	1901	Limited contractual	..	..	..
American Cast Iron Pipe Co..... Birmingham, Ala.	1,590	10	1906	Discretionary	..	..	..
American Electric Power Co..... Philadelphia, Pa.	4,000	200	1899	Discretionary	..	..	..
American Express Co..... New York City	3,699		1868	Discretionary	..	..	..
American Museum of Natural History..... New York City	..	..	..	..	Limited contractual; compulsory	3% of salary	Equal amount
American Smelting and Refining Co..... New York City	10,250		1899	Discretionary	..	..	..
American Stove Co..... St. Louis, Mo.	3,000	175	1902	Discretionary	..	..	..
American Sugar Refining Co..... New York City	9,000		1891	Discretionary	..	..	..
American Telephone and Telegraph Co. and Associated Companies..... New York City	95,680	180,460	..	Limited contractual	..	..	..

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan	Type of Plan		Extent of Contributions by	
	Male	Female			Non-contributory	Contributory	Employee	Employer
Armour and Company..... Chicago, Ill.	22,500	2,500	..	1911 rev. 1925	..	Limited con- tractual; compulsory	3% of salary bet. \$520 and \$6,000	Fund of \$1,000,000
Associated Press..... New York City	1,341		1900	1918	Discretionary	..	..	..
Atchison, Topeka & Santa Fe System..... Chicago, Ill.	75,334		1895	1907	Discretionary	..	..	..
Atlantic Coast Line Railroad Co..... Wilmington, N. C.	..	..	..	1923	Discretionary	..	..	..
Atlantic Refining Co..... Philadelphia, Pa.	8,000	1,000	1870	1903	Discretionary	..	..	..
Atlas Powder Co..... Wilmington, Del.	2,350		1912	1912	Limited contractual	..	..	..
Baltimore & Ohio Railroad Co..... Baltimore, Md.	77,329		1827	1884	Discretionary	..	..	..
Jos. Bancroft and Sons Co..... Wilmington, Del.	1,430	389	1889	1915	Discretionary	..	..	..
Bangor Railway and Electric Co..... Bangor, Me.	186	25	1905	1912	Discretionary	..	..	..
Bank of Italy..... San Francisco, Cal.	..	..	1904	1925	Discretionary	..	..	..
Bankers Trust Co..... New York City	775	467	1903	1913	..	Limited con- tractual; compulsory	3% of salary	Not specified
Beech-Nut Packing Co..... Canajoharie, N. Y.	351	265	1899	..	..	..	..	..
Bethlehem Steel Corporation..... Bethlehem, Pa.	62,775	1,000	1904	1923	Discretionary	..	..	..
Blount Plow Works..... Evansville, Ind.	..	..	1867	1913	Discretionary	..	..	..

Sidney Blumenthal & Co., Shelton, Conn.	1,300	360	1854	1920	..	Optional mem- bership	\$1 to \$5 per week, acc. to w a g e group	\$100, in- creased by \$25 every 5 years
Boston Consolidated Gas Co., Boston, Mass.	1,460	185	1905	1919	Discretionary	..	..	..
Boston Elevated Railway, Boston, Mass.	8,500	500	1894	1920	Discretionary	..	..	..
Brooklyn Edison Co., Brooklyn, N. Y.	6,057	697	..	1910	Discretionary	..	..	..
Brooklyn Manhattan Transit Corporation, Brooklyn, N. Y.	9,500	..	..	1910	Discretionary	..	..	..
Bryden-Neverslip Co., New Brunswick, N. J.	257	11	1917	1925	Discretionary	..	..	..
Buffalo, Rochester & Pittsburgh Railway Co., Rochester, N. Y.	7,174	1887	1887	1903	Discretionary	..	..	..
Butler Brothers, Chicago, Ill.	5,000	1877	1877	1907	Limited contractual	..	..	..
Callender, McAuslan and Troup Co., Providence, R. I.	337	466	..	1916	Discretionary	..	..	..
Calumet and Hecla Consolidated Copper Co., Calumet, Mich.	3,368	49	1871	1904	Discretionary	..	..	..
Central of Georgia Railway Co., Savannah, Ga.	9,204	325	1895	1917	Discretionary	..	..	..
Central Illinois Public Service Co., Springfield, Ill.	1,403	238	1912	1924	Discretionary	..	..	..
Central Railroad of New Jersey, New York City	15,706	499	1849	1903	Discretionary	..	..	..
Central Trust Co. of Illinois, Chicago, Ill.	360	160	1902	1914	..	Limited con- tractual; compulsory	Monthly sum according to schedule	Initial cost plus operat- ing expense
Cheney Brothers, South Manchester, Conn.	2,705	1,635	1838	1910	Limited contractual	..	..	..
Chesapeake and Ohio Railway Co., Richmond, Va.	29,085	1878	1878	1913	Discretionary	..	..	..

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan	Type of Plan		Extent of Contributions by	
	Male	Female			Non-contributory	Contributory	Employee	Employer
Chicago and Northwestern Railway.....	44,000		1859	1901	Discretionary	..	..	..
New York City								
Chicago, Burlington & Quincy R. R. Co.....	50,000		..	1922	Discretionary	..	..	..
Chicago, Ill.								
Chicago, North Shore and Milwaukee R. R. Co.....	1,700		..	1924	Discretionary	..	..	..
Chicago, Ill.								
Chicago, Rock Island and Pacific R'y Co.....	36,396	1,604	1880	1910	Discretionary	..	..	..
Chicago, Ill.								
Cleveland Cliffs Iron Co.....	3,431	54	1850	1909	Discretionary	..	..	..
Ishpeming, Mich.								
Cleveland Metal Products Co.....	2,000	200	1888	1915	Discretionary	..	..	..
Cleveland, O.								
Clyde Iron Works.....	330	20	1899	1920	Discretionary	..	..	..
Duluth, Minn.								
Colorado Fuel and Iron Co.....	10,000	100	1892	1917	Discretionary	..	..	..
Denver, Colo.								
Columbus R'y, Power & Light Co.....	904		..	..	Discretionary	..	..	..
Columbus, O.								
Commercial Trust Co. of New Jersey.....	116		1900	1916	Discretionary	..	..	..
Jersey City, N. J.								
Commonwealth Edison Co.....	7,673	1,021	1907	1912	Discretionary	..	..	..
Chicago, Ill.								
Connecticut Mutual Life Insurance Co.....	95	175	1846	1916	Discretionary	..	..	..
Hartford, Conn.								
Consolidated Gas Co. of N. Y.....	..	..	..	..	Discretionary	..	..	..
New York City								
Consolidated Gas, Electric Light & Power Co. of Baltimore.....	4,116	394	1906	1912	Discretionary	..	..	..
Baltimore, Md.								

Corticelli Silk Co.....	421	585	1838	1919	Discretionary	..	..	..
Florence, Mass.								
Crane Co.....	..	..	1855	1916	Discretionary	..	..	..
Chicago, Ill.								
Crompton and Knowles Loom Works	2,700	300	1897	1916	Discretionary	..	..	..
Worcester, Mass.								
Cudahy Brothers Co.....	1,200	200	1893	1924	..	Limited con- tractual; compulsory	3% to 5% of salary up to \$200 per mo.	Legal amounts
Cudahy, Wis.								
Cumberland County Power and Light Co.....	660	40	..	1912	Discretionary	..	..	..
Portland, Me.								
Deere and Co.....	5,500	500	1847	1908	Discretionary	..	..	..
Moline, Ill.								
Delaware and Hudson Co.....	15,000		1823	1895	Discretionary	..	..	..
New York City								
Delaware, Lackawanna and Western Rail- road Co.....	24,205		1853	1902	Discretionary	..	..	..
New York City								
Denver and Rio Grande Western Railroad Co.....	10,000		1880	1917	Discretionary	..	..	..
Denver, Colo.								
Des Moines City Railway Co.....	900	80	1893	1924	Discretionary	..	..	..
Des Moines, Ia.								
Diamond Match Co.....	..	..	1889	..	Discretionary	..	..	..
New York City								
Duluth Street Railway Co.....	550	33	1881	1917	Limited liability	..	..	..
Duluth, Minn.								
E. I. DuPont de Nemours & Co.....	9,738	1,428	1802	1905	Limited liability	..	..	..
Wilmington, Del.								
J. H. & C. K. Eagle, Inc.....	1,214	1,883	1899	1920	Discretionary	..	..	..
Shamokin, Pa.								
Edison Electric Illuminating Co.....	2,200	500	1886	1913	Discretionary	..	..	..
Boston, Mass.								
Elgin National Watch Co.....	2,016	2,079	1864	1918	..	Limited con- tractual; compulsory	Equal amounts by both parties, depending on salary	..

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan	Type of Plan		Extent of Contributions by	
	Male	Female			Non-contributory	Contributory	Employee	Employer
Elmira Star-Gazette, Inc.....	110	25	1907	1923	Discretionary	..	..	..
Elmira, N. Y.								
Empire Trust Co.....		277	..	1919	..	Contractual	\$5 per mo. upward	Equal amount
New York City								..
Equitable Life Assurance Society.....		2,500	1859	1912	Discretionary	..	..	..
New York City								
Equitable Trust Co. of N. Y.....	1,500	500	1871	1925	..	Contractual; compulsory	1½% of annual salary	Like amount at age 60
New York City							..	..
El Paso and Southwestern System.....	..	..	..	1914	Discretionary	..	..	..
New York City								
Evening Star Newspaper Co.....	429	31	1852	1919	Discretionary	..	..	..
Washington, D. C.								
Fairbanks, Morse & Co. (2 plans).....	6,000		1891	1917	(1) Discretionary	(2) Limited contractual; compulsory for males	3% of salary	Like amount
Beloit, Wis.								
Falulah Paper Co.....	261	48	1885	1918	Discretionary	..	..	..
Fitchburg, Mass.								
Farmers' & Mechanics' Savings Bank.....	41	34	1874	1912	..	Discretionary compulsory	3% of salary	Whatever company decides
Minneapolis, Minn.								At bank's discretion
First National Bank of the City of New York	..	..	..	1911 rev. 1924	..	Limited contractual; optional	5% of salary	..
New York City								
First & Old Detroit National Bank.....	310	89	1863	1913	..	Limited contractual; optional	3% of salary	At bank's discretion
Detroit, Mich.								..
Florida East Coast Railway Co.....	..	..	..	..	..	..	..	..
New York City								

Fort Worth & Denver City Railway Co..... Fort Worth, Tex.	2,427	98	1873	1922	Discretionary	..	..	..
H. H. Franklin M'fg Co..... Syracuse, N. Y.	2,750	200	1895	1921	Discretionary	..	..	..
W. P. Fuller & Co..... San Francisco, Cal.	1,150	250	1894	1922	Discretionary	..	..	..
General Electric Co..... Schenectady, N. Y.	56,000	19,000	1892	1912	Limited contractual	..	..	..
General Fire Extinguisher Co..... Providence, R. I.	3,300	200	1892	1914	Discretionary	..	..	..
Georgia Railway & Power Co..... Atlanta, Ga.	5,000		1912	1922	Discretionary	..	..	..
Gilbert & Barker M'fg Co..... Springfield, Mass.	1,300	75	1865	1918	Limited contractual	..	..	..
Gimbel Brothers..... Philadelphia, Pa.	4,000		..	1920	Discretionary	..	..	..
B. F. Goodrich Co..... Akron, O.	8,500	2,300	1870	1915	Limited contractual	..	..	..
Goodyear Tire & Rubber Co..... Akron, O.	9,682	1,047	1898	..	..	..	..	..
Gorham M'fg Co..... Providence, R. I.	1,800	200	1831	1903	Limited contractual	..	..	..
Great Northern Railway Lines..... St. Paul, Minn.	27,000		..	1916	Discretionary	..	..	..
Guaranty Trust Co. of N. Y..... New York City	2,500	1,200	..	..	..	..	..	..
Hibbard, Spencer, Bartlett & Co..... Chicago, Ill.	763	367	1855	1905	..	Limited contractual; compulsory	2% of salary not exceeding \$60 per year	Equal amount
D. H. Holmes Co., Ltd..... New Orleans, La.	519	653	1842	1917	Discretionary	..	..	..
F. C. Huyck & Sons..... Albany, N. Y.	457	247	1894	1911	..	Limited contractual; compulsory	1% of salary	Equal amount

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan		Type of Plan		Extent of Contributions by	
	Male	Female				Non-contributory	Contributory	Employee	Employer
Illinois Central Railroad.....	58,339		1851	1901		Discretionary	..	..	..
Chicago, Ill.									
Interborough Rapid Transit Co.....	14,958	42	..	1916		Discretionary	..	..	..
New York City									
International Correspondence School.....	373	2,015	1891	1920		Discretionary	..	..	..
Scranton, Pa.									
International Harvester Co.....	35,000		1902	1908		Discretionary	..	..	..
Chicago, Ill.									
International Railway Co.....	..	..	..	1923		..	Limited con- tractual; optional	\$1 per mo.	Equal amount
Buffalo, N. Y.									
International Silver Co.....	3,730	1,001	1898	1912		Discretionary	..	..	..
Meriden, Conn.									
Interstate Public Service Co.....	1,661	110	1912	1924		Discretionary	..	..	..
Indianapolis, Ind.									
Kansas City Railways Co.....	3,066		1914	1917		Discretionary	..	..	..
Kansas City, Mo.									
Spencer Kellogg and Sons, Inc.....	1,000	75	1894	1919		Limited contractual	..	..	..
Buffalo, N. Y.									
Kimberly-Clark Co.....	1,900	100	1872	1915		Discretionary	..	..	..
Neeenah, Wis.									
Lake Superior District Power Co.....	137	24	1917	1924		Discretionary	..	..	..
Ironwood, Mich.									
Landers, Frary and Clark.....	..	..	1853	..		..	..	..	..
New Britain, Conn.									
Lehigh Valley Transit Co.....	..	..	..	..		..	..	..	..
Allentown, Pa.									
Library Bureau.....	685	74	1888	..		..	..	..	..
Ilion, N. Y.									

Eli Lilly & Co.....	504	474	1876	1920	Discretionary	..	..
Indianapolis, Ind.....							
Louisville Railway Co.....	1,603	38	1867	..	Discretionary	..	..
Louisville, Ky.....							
McCray Refrigerator Co.....	450	70	1890	1924	Discretionary	..	..
Kendallville, Ind.....							
Mackintosh-Hemphill Co.....	..	..	..	..	..	..	..
Pittsburgh, Pa.....							
Magnolia Petroleum Co.....	7,000		1911	1918	Limited contractual	..	..
Dallas, Tex.....							
Marshall-Wells Co.....	600	200	..	..	Discretionary	..	..
Duluth, Minn.....							
Mennen Co.....	108		..	1918	Limited contractual	..	..
Newark, N. J.....							
Metropolitan Life Insurance Co.....	23,014	8,700	..	1925	Contractual; optional	..	..
New York City.....							
Mead Pulp and Paper Co.....	524	37	1904	1921	Discretionary	..	..
Chillicothe, O.....							
Miehle Printing Press and M'fg Co.....	1,000	35	..	1917	Limited contractual	..	..
Chicago, Ill.....							
Milwaukee Electric R'y and Light Co.....	4,745	518	1896	1912	Discretionary	..	..
Milwaukee, Wis.....							
Minneapolis, St. Paul and Sault Ste. Marie R'y Co.....	13,657		1886	1910	Discretionary	..	..
Minneapolis, Minn.....							
Missouri Pacific R. R. Co.....	35,778		1917	1917	Discretionary	..	..
New York City.....							
Murphy Varnish Co.....	371	66	1891	1908	Discretionary	..	..
Newark, N. J.....							
Mutual Benefit Life Insurance Co.....	167	335	1845	1915	Discretionary	..	..
Newark, N. J.....							
Nashville, Chattanooga & St. Louis Railway Nashville, Tenn.....	9,275	125	1845	1914	Discretionary	..	..
National Bank of Commerce in New York.. New York City.....	702	277	1839	..	Discretionary	..	..

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan	Type of Plan		Extent of Contributions by	
	Male	Female			Non-contributory	Contributory	Employee	Employer
National Brake and Electric Co.....	650	40	1906	1921	Limited contractual	..	..	..
Milwaukee, Wis.								
National City Bank.....	1,600	470	1812	1912	Discretionary	..	..	..
New York City								
National Lead Co.....	..	..	1891	1912	Discretionary	..	..	..
New York City								
National Leather Co.....	1,413	112	1919	1920	Discretionary	..	..	..
Boston, Mass.								
National Shawmut Bank.....	355	115	1836	1910	Discretionary	..	..	..
Boston, Mass.								
A. E. Nettleton Co.....	350	200	1879	1907	Limited contractual	..	..	..
Syracuse, N. Y.								
New Jersey Zinc Co.....	..	..	1880	1911	Discretionary	..	..	..
New York City								
New Orleans Public Service, Inc.....	4,295	99	1900	1919	Limited contractual	..	..	..
New Orleans, La.								
Newport News Shipbuilding and Drydock Co.....	4,923	114	1890	1915	Discretionary	..	..	..
Newport News, Va.								
New York Central Lines.....	165,000		1826	1910	Discretionary	..	..	..
New York City								
New York, Chicago & St. Louis Railroad Co.	8,050	..	1882	1924	Discretionary	..	..	..
Cleveland, O.								
New York Railways Co.....	3,000	..	1925	1916	Discretionary	..	..	..
New York City								
New York Life Insurance Co.....	1,100	1,500	(re-org'd)	..	Discretionary	..	..	..
New York City								
New York Stock Exchange.....	875		1863	1925	Contractual	Contractual	3% or more of salary	Not specified: varies with em-
New York City								

												ployee's contribu- tions
New York, Ontario and Western Railway Co. New York City	4,374	131	1880	1915	Discretionary	..	..	..	..	..	..	..
Niagara Falls Power Co.....	650	50	1918	1919	Discretionary	..	..	..	..	..	..	..
Niagara Falls, N. Y.												
Norfolk & Western R'y Co.....	30,000		1881	1917	Discretionary	..	..	..	..	..	..	..
Roanoke, Va.												
Northern Pacific Railway Co.....	31,581	1,345	1870	1922	Discretionary	..	..	..	..	..	..	..
St. Paul, Minn.					..							
Northern Trust Co.....	326	145	1889	1913	..	Limited con- tractual; compulsory	3% of salary up to \$4,000	..	..	..	5% of salary up to \$4,000	..
Chicago, Ill.												
Northwestern Mutual Life Insurance Co.....	517	428	1857	1915	Discretionary	..	..	..	..	..	..	..
Milwaukee, Wis.												
Northwestern National Bank.....	320	128	1872	1911	..	Limited con- tractual; compulsory	4% and up on salary to \$9,000	..	..	..	Equal amount	..
Minneapolis, Minn.												
Northwestern Pacific Railroad Co.....	2,327	66	1907	1912	Discretionary	..	..	..	..	..	..	..
San Francisco, Cal.												
Omaha & Council Bluffs Street R'y Co.....	1,300	6	1902	1916	Discretionary	..	..	..	..	..	..	..
Omaha, Neb.												
Otis Elevator Co.....	8,300	850	1899	1923	Discretionary	..	..	..	..	..	..	..
New York City				(rev.) 1916	Limited contractual	..	..	..	..	..	..	..
Pacific Gas & Electric Co.....	12,233		1905	1907	Discretionary	..	..	..	..	..	..	..
San Francisco, Cal.												
Parke, Davis & Co.....	827	1,011	1866	1907	Discretionary	..	..	..	..	..	..	..
Detroit, Mich.												
Parkhill M'fg Co.....	800	750	1881	1919	Discretionary	..	..	..	..	..	..	..
Fitchburg, Mass.												
Pennsylvania Railroad System.....	254,096		..	1900	Discretionary	..	..	..	..	..	..	..
Philadelphia, Pa.												
People's Gas Light & Coke Co.....	3,600	600	1855	1912	Discretionary	..	..	..	..	..	..	..
Chicago, Ill.												

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan		Type of Plan		Extent of Contributions by	
	Male	Female				Non-contributory	Contributory	Employee	Employer
Philadelphia Electric Co.	5,238	723	1881	1911	Discretionary	Discretionary	..	..	..
Philadelphia, Pa.									
Philadelphia Rapid Transit Co.	11,100	600	1902	1918	..	Discretionary	Limited contractual	\$1 per mo.	Equal amount
Philadelphia, Pa.									
Philadelphia and Reading Railway Co.	30,953	852	..	1902	Discretionary	Discretionary	..	..	..
Philadelphia, Pa.									
Philadelphia Trust Co.	156	65	1869	1916	Discretionary	Discretionary	..	..	..
Philadelphia, Pa.									
Phoenix Horse Shoe Co.	..	..	..	..	Limited contractual	Limited contractual	..	..	..
Joliet, Ill.									
Pittsburgh Coal Co. (2 plans)	10,760		1899	1919 { 1923	Discretionary	Discretionary	Limited contractual; optional	..	..
Pittsburgh, Pa.									
Plymouth Cordage Co.	1,350	350	1824	1900	Discretionary	Discretionary	..	..	..
Plymouth, Mass.									
Port Huron Sulphite and Paper Co.	224	8	1889	1919	Discretionary	Discretionary	..	..	..
Port Huron, Mich.									
Procter and Gamble Co.	6,700	800	1892	1915	..	Discretionary	Limited contractual compulsory for some. Optional for others	\$8 per \$1,000 of salary up to \$2,400	\$16 per \$1,000 of payroll
Ivorydale, O.									
Prudential Insurance Co. of America.	19,501	5,513	1875	1912	Discretionary	Discretionary	..	..	..
Newark, N. J.									
Pullman Co.	35,431		1867	1914	Discretionary	Discretionary	..	..	..
Chicago, Ill.									
Richmond, Fredericksburg & Potomac Railroad Co.	3,650	150	1824	1923	Discretionary	Discretionary	..	..	..
Richmond, Va.									

	55	..	1924	..	Contractual; compulsory	5% of salary	Equal amount
Rockefeller Institute for Medical Research...							
New York City							
John A. Roebling's Sons Co.	5,977	549	1841	1922	Limited contractual	..	..
Trenton, N. J.							
The Ruberoid Co.	758	69	1905	1922	Limited contractual	..	..
Joliet, Ill.							
St. Joseph Lead Co.	4,700	1864	1914	1914	Limited contractual	..	..
New York City							
St. Louis-San Francisco R'y Co.	..	..	1913	1913	Discretionary	..	..
St. Louis, Mo.							
San Antonio & Aransas Pass R'y Co.	2,500	..	1903	1903	Discretionary	..	..
San Antonio, Tex.							
San Francisco-Oakland Terminal Railways...	2,397	93	1923	1913	Discretionary	..	..
Oakland, Cal.			(re- org'd)				
The Shepard Stores.	300	700	1865	1920	Discretionary	..	..
Boston, Mass.							
Sherwin-Williams Co.	..	..	1866	1887	Discretionary	..	..
Cleveland, O.							
Simonds Saw and Steel Co.	1,935	250	1868	1908	Discretionary	..	..
Fitchburg, Mass.							
Society of the New York Hospital.	430	504	1771	1914	Limited contractual	..	..
New York City							
Southern California Edison Co.	3,646	403	1909	1919	Limited contractual	..	..
Los Angeles, Cal.							
Southern Illinois Railway and Power Co.	48	4	..	1924	Limited contractual	..	..
Springfield, Ill.							
Southern Pacific Co.	53,799	1884	1903	1903	Discretionary	..	..
New York City							
Sprague Warner and Co.	758	299	1862	1915	Discretionary	..	..
Chicago, Ill.							
Standard Oil Co. of California.	..	..	1879	1918	Limited contractual	..	..
San Francisco, Cal.							
Standard Oil Co. of Kansas.	404	4	1892	1909	Limited contractual	..	..
Neodesha, Kan.							

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan	Type of Plan		Extent of Contributions by	
	Male	Female			Non-contributory	Contributory	Employee	Employer
Standard Oil Co. of Kentucky..... Louisville, Ky.	2,656	204	1886	1918	Limited contractual	..	..	..
Standard Oil Co. of Nebraska..... Omaha, Neb.	858		1906	1918	Limited contractual	..	..	..
Standard Oil Co. of New Jersey..... New York City	20,000	..	1870	1918	Limited contractual	..	..	..
Standard Oil Co. of New York..... New York City	23,760	1,240	1882	1903	Limited contractual	..	..	..
Standard Oil Co. of Ohio..... Cleveland, O.	4,735	268	1870	1909	Discretionary	..	..	..
Stanley Rule and Level Plant..... New Britain, Conn.	1,056	210	1857	1915	Discretionary	..	..	..
Stix, Baer & Fuller Dry Goods Co..... St. Louis, Mo.	600	1,400	..	1923	Discretionary	..	..	..
S. W. Straus and Co..... New York City	..	..	1882	1922	Discretionary	..	..	..
Strawbridge and Clothier..... Philadelphia, Pa.	5,000		1868	1907	..	Limited contractual compulsory	20¢ per mo. in advance	No regular contribution
Studebaker Corporation..... South Bend, Ind.	22,000		1852	1912	Limited contractual	..	..	..
Sullivan Machinery Corp..... Claremont, N. H.	918	153	1869	1915	Limited contractual	..	..	..
Swift and Co..... Chicago, Ill.	53,000		1885	1916	Discretionary	..	..	..
Talbot Mills..... North Billerica, Mass.	300	140	1857	1903	Discretionary	..	..	..
Charles H. Tenney and Co. (and subsidiaries)..... Boston, Mass.	..	..	..	1910	Discretionary	..	..	..

Tide Water Oil Co.....	3,500	1888	1908	Discretionary	..	..
New York City						
Travelers Insurance Co.....	3,575	4,472	1863	1913	Discretionary	..
Hartford, Conn.						
Nathaniel Tufts Meter Works.....	128	7	1860	1920	Limited contractual	..
Boston, Mass.						
Twin City Rapid Transit Co.....	3,760	125	1872	1915	Discretionary	..
Minneapolis, Minn.						
Union Central Life Insurance Co.....	358	435	1867	1917	Discretionary	..
Cincinnati, O.						
Union Electric Light and Power Co.....	1,511	281	..	1915	Discretionary	..
St. Louis, Mo.						
Union Pacific System (and subsidiaries)....	51,341		1897	1903	Discretionary	..
Omaha, Neb.						
Union Special Machine Co.....	850	110	1880	1920	Discretionary	..
Chicago, Ill.						
Union Street Railway Co.....	590	9	1887	1910	Discretionary	..
New Bedford, Mass.						
Union Trust Co.....	350	100	1869	1912	Discretionary	..
Chicago, Ill.						
United Electric Railways Co.....	2,819	56	1902	1902	Discretionary	..
Providence, R. I.						
United Railway, and Electric Co. of Baltimore	4,750	250	..	1914	Discretionary	..
Baltimore, Md.						
United Railways of St. Louis.....	5,901	112	1899	1915	Discretionary	..
St. Louis, Mo.						
United States Rubber Co.....	28,700	12,300	1892	1917	Limited contractual	..
New York City						
United States Steel Corp. (and subsidiaries)...	250,000		1901	1911	Discretionary	..
New York City						
Vacuum Oil Co.....	715	13	1866	1919	Limited contractual	..
New York City						
Vermont Marble Co.....	2,318	57	1902	1913	Discretionary	..
Proctor, Vt.						
Victor Talking Machine Co.....	2,214	1,154	1901	1913	Discretionary	..
Camden, N. J.						

LIST OF COMPANIES HAVING PENSION PLANS—(Continued)

Company	Number of Employees		Year of Organization	Date of Plan	Type of Plan		Extent of Contributions by	
	Male	Female			Non-contributory	Contributory	Employee	Employer
Virginia Bridge and Iron Co.....	1,660	11	1895	1914	Discretionary	..	..	..
Roanoke, Va.								
R. Wallace and Sons M'fg Co.....	707	167	1864	1912	Discretionary	..	..	..
Wallingford, Conn.								
John Wanamaker, Inc.....	2,400	3,600	1865	1920	Discretionary	..	..	..
Philadelphia, Pa.								
Ward Baking Co.....	5,087	857	1912	1921	Discretionary	..	..	..
New York City								
Washington R'y and Electric Co. (and subsidiaries).....	..	..	..	1916	Discretionary	..	..	..
Washington, D. C.								
Washington and Virginia Railway Co.....	278	21	1896	1916	Discretionary	..	..	..
Washington, D. C.								
West Kentucky Coal Co.....	1,825	25	..	..	Discretionary	..	..	..
Sturgis, Ky.								
Western Clock Co.....	725	725	1885	1924	..	Contractual optional	\$50 to \$1 per wk.	\$5 and up, based on schedules
La Salle, Ill.								
Western Electric Co.....	45,000	..	..	1913	Limited contractual	..	..	..
New York City								
Western Maryland R'y Co. (two plans).....	..	..	1885	{ 1909 1916	Discretionary	Limited contractual Optional	\$55 to \$4.50 per mo. to Relief Dept.	10% of employees' contributions
Baltimore, Md.								
Western Union Telegraph Co.....	41,413	16,117	1851	1913	Discretionary	..	..	..
New York City								
Westinghouse Air Brake Co.....	4,310	325	1869	1908	Limited contractual	..	..	..
Wilmerding, Pa.								
Westinghouse Electric and M'fg Co.	34,212	5,702	1886	1915	Limited contractual	..	..	..
East Pittsburgh, Pa.								

Whitman and Barnes Mfg Co.	350	50	1854	1918	Limited contractual	..	..	..
Akron, O.								
Wickwire Spencer Steel Corp.	3,600	200	1919	1923	Discretionary	..	..	..
Buffalo, N. Y.								
Willard Storage Battery Co.	1,300	300	1902	1923	Limited contractual	..	..	..
Cleveland, O.								
Wilson and Co.	10,500	1,500	1910	1917	..	Limited contractual; compulsory	3% of salary max. \$225 a ny	Initial fund plus additions
Chicago, Ill.								
Winchester Repeating Arms Co.	4,500	1,500	1865	1915	Limited contractual	..	..	..
New Haven, Conn.								
Rudolph Wurlitzer Co.	..	..	1856	..	Discretionary	..	..	..
Cincinnati, O.								
J. H. Williams and Co.	..	..	1882	1914	Discretionary	..	..	..
Brooklyn, N. Y.								
Yawman and Erbe Mfg Co.	479	193	..	1920	Discretionary	..	..	..
Rochester, N. Y.								
Zion's Co-operative Mercantile Institution . . .	485	204	1868	1911	Discretionary	..	..	..
Salt Lake City, Utah								

ADDITIONAL PENSION PLANS ¹

All American Cables, Inc., New York City. . .	..	..	..	1925	..	Contractual optional	..	..
Boomer du Pont Properties Corp., New York City	5,000	..	..	1925	..	Contractual optional	..	..
Middle West Utilities Co., Chicago, Ill.	7,000			1924	Discretionary	..	..	..
New York Times, New York City	1,735	337	1851	1921	Discretionary	..	..	..
Plimpton Press, La Porte, Ind.	..	..	..	1925	..	Contractual optional	Equal amount	Equal amount
Texas & Pacific Railroad Co., Dallas, Texas . .	..	..	1847	1925	Discretionary	..	..	..
The Tribune Co., Chicago, Ill.	2,000	500	..	1915	Discretionary	..	..	..
United Cigar Stores Co., New York City . . .	..	..	..	1925	Discretionary	..	..	..

¹ Discussion of these plans not included in the text.



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N274	conference board.
1925	Industrial pensions
	in the United States.

in_{NAME} the United_{DATE} States.

